

**Keynes's *General Theory*, the Rate of Interest
and 'Keynesian Economics'**

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Abstract

Keynes was primarily concerned with monetary policy not fiscal policy. Viewed as a coherent whole, his work was concerned with the appropriate technique and infrastructure for the management of money. More specifically, his rejection of the gold standard led ultimately to his proposal for an international clearing union to support domestic debt-management and monetary policies aimed at cheap money. His ideas became reality. With the start of the great depression, governments across the world began an era of the deliberate management of money.

While many others have argued that 'Keynesian' economics is a misrepresentation of Keynes's theory, I therefore argue that 'Keynesian' economics also permitted a gross misrepresentation of his economic policies.

The first of two parts is concerned with explaining 'Keynesian' economics as a different theory opposed, and indeed rival, to Keynes's work. Hawtrey made the first contributions, followed by Robertson; Hicks and Modigliani only built on these foundations. The economics profession was willing to turn to this theory to recompense the obvious inadequacies of the classical theory in the wake of the great depression. It was unwilling to entertain the *General Theory* itself. Keynes's response to this rival theory is examined. Lastly the discussion shows how post-war academic debate facilitated the gradual dismantling of the practical measures of monetary reform that Keynes had achieved.

The second part of the thesis seeks to re-present Keynes's *General Theory* as a logical structure aimed at the practical monetary policy conclusions. The steps are as follows: first, the origin and foundation of his theory as monetary economics; second, the 'discovery' of the identity between saving and investment; third, the development of the theories of liquidity preference (why and how cheap money *can* be set) and of activity as a whole (why cheap money *must* be set).

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I. The Theory as a Whole

Chapter 1

Proposition

In the first half of the twentieth century, John Maynard Keynes provided a theoretical explanation for the operation of a free market economy. This theory and the associated practical conclusions are lost to society.

We might play with the idea that the inability of the interest rate to fall has brought down empires. ... Thus it is of overwhelming importance that the optimum interest rate be determined by institutions and banking practice. And the bad effect of saving must be recognised. All past teaching has (if my view here given is correct) been either irrelevant, or else positively injurious. We have not only failed to understand the economic order under which we live, but we have misunderstood it to the extent of adopting practices which operate most harshly to our detriment, so that we are tempted to cure ills arising out of our misunderstanding by resort to further destruction in the form of revolution. (Martin Fallgatter's notes of Keynes's 1933 lectures, quoted in Skidelsky, 1992, p. 502)

The monetary authorities can have any rate of interest they like. (Keynes's notes for the National Debt Enquiry, 1945, CW XXVII, p. 390)

The most important influences upon interest rates – which account for, say, the difference between 30% in a Chinese village and 3% in London – are social, legal, and institutional. Side by side with the industrial revolution went great technical progress in the provision of credit and the reduction of lender's risk and great changes in social habits favourable to lending; and in the broad sweep of history these considerations are more significant than any others. (Robinson, 1951, p. 92)

1.1 Keynes's economics

The central argument of this thesis is that 'Keynesian economics' betrayed not only Keynes's economic theory, but also his policy conclusions. Throughout his life, Keynes was primarily concerned with monetary policy. Ultimately, Keynes set out debt-management, monetary and international financial policies that would facilitate the setting of appropriate rates of interest across the spectrum of liquidity.

The General Theory of Employment, Interest and Money did not merely demonstrate the effectiveness of fiscal policy, but was the theoretical culmination of a prolonged enquiry into the nature of a free market monetary economy. The theory offered a sophisticated diagnosis of the cause of what Keynes saw as the 'Economic Problem' of high unemployment, the business cycle and the extreme inequity of income distribution. The diagnosis concluded that the Economic Problem was not the inevitable condition of a free market economy, but a consequence of a specific failure of policy: a long-term rate of interest that was too high. Following the diagnosis of monetary cause, the theory prescribed a monetary solution. His liquidity preference theory of the long-term rate of interest had the fundamental conclusion that the authorities could bring the rate under their deliberate control:

It might be more accurate, perhaps, to say that the rate of interest is a highly conventional, rather than a highly psychological, phenomenon. For its actual value is largely governed by the prevailing view as to what its value is expected to be. *Any* level of interest which is accepted with sufficient conviction as *likely* to be durable *will* be durable; subject, of course, in a changing society to fluctuations for all kinds of reasons round the expected normal. (CW VII, p. 203)

In its historical context, the *General Theory* demonstrated both the feasibility and the validity of the deliberate reduction of short- and long-term rates of interest that, under Keynes's influence, the authorities had been pursuing since the great depression began. In the broadest possible sense, the most important positive policy conclusion of the *General Theory* was that the Economic Problem might

be solved by the permanent implementation of a cheap money policy. Expressed negatively, the Economic Problem was caused by dear money.

Keynes's interest in fiscal policy was, in general, secondary:

My proposals for the control of the business cycle are based on the control of *investment*. I have explained in detail that the most effective ways of controlling investment vary according to circumstances; and I have been foremost to point out that circumstances can arise, and have arisen recently, when neither control of the short-term rate of interest nor even control of the long-term rate will be effective, with the result that direct stimulation of investment by government is the necessary means. (Keynes, 1933, p. 675)¹

However, his conclusions in this field are still inadequately depicted by his 'Keynesian' interpreters, who were less concerned with the diagnosis and prevention of the Economic Problem than the implementation of their own preferred cure. Keynes obviously advocated the use of public works for an economy in depression, although his analysis of the financing of such policies offered a degree of sophistication not present in the 'Keynesian' interpretation. Furthermore, Keynes envisaged a specific and permanent use of fiscal policy, both taxation and expenditure, as support to monetary policy. He argued that cheap-money policy should be set alongside a policy of re-distributional taxation in order to increase the marginal propensity to consume. The normal extent of government expenditure should then be dictated by the ability of these policies to reduce unemployment in their own right.

1.2 Neo-classical and 'Keynesian' economics

Now, no doubt, Keynes and his most intimate colleagues began by creating an open-ended system very different from the mechanical excellence of the old determinate 'science'. But its development and application would have implied an historical and sociological approach to the unique sequences of economic development. This the profession was fiercely unwilling to undertake.

¹ The source of this quotation is not included in the *Collected Writings* – see section 1.4.

Instead a new theoretical edifice was erected which could be reconnected to the neo-classical theory of harmony and just shares in the distribution of income. ...

The Keynesian Revolution gained acceptance because ultimately it was, after its formalisation, deeply conservative in character. (Balogh, 1976, pp. 83-4)

'Keynesian' economics was never a reconciliation between the *General Theory* and classical economics, but an alternative theory opposed to both the theoretical scheme and practical conclusions of Keynes's work. Furthermore, the originator of this theory was not J. R. Hicks, but Keynes's contemporaries: R. G. Hawtrey and D. H. Robertson. Keynes was familiar with this work and referred to it as 'neo-classical'.²

Early neo-classical positions had been set out in Hawtrey's *Good and Bad Trade* (1913) and *Currency and Credit* (1919) and Robertson's *A Study of Industrial Fluctuation* (1915) and *Banking Policy and the Price Level* (1926). Each of these essentially developed classical theory in the light of the new emphasis given to credit creation at this time. Between the publication of the *Treatise on Money* and the *General Theory* Robertson went on to make a number of contributions towards what would become the first of the 'Keynesian' versions of neo-classical economics. Hicks and N. Kaldor acknowledged, retrospectively, the importance of Robertson himself and of these specific contributions:

I cannot help suspecting that what has happened to Mr. Kaldor is something which I recognise from my own experience when I was writing *Value and Capital*. The effect on Mr. Kaldor's mind, as well as on my own, of the *General Theory* has been profound; but we have each of us been led, sometimes consciously, sometimes unconsciously, through Keynes to Robertson. (Hicks, 1942, p. 55)

In the early 1930's, Keynesian ideas were in the air, long before the publication of the *General Theory* gave them a systematic expression.

² He used this terminology only once in the *General Theory* (p. 177), but repeatedly emphasised the distinction in private correspondence; for example, on 15 April 1936 he wrote as follows to Hawtrey: "I mean by the classical school, as I have repeatedly explained, not merely Ricardo and Mill, but Marshall and Pigou and Henderson and myself until quite recently, and in fact every teacher of the subject in this country with the exception of yourself and a few recent figures like Hayek, whom I should call 'neo-classicals' (CW XIV, p. 24).

Professor Robertson's paper in the December, 1934 issue of the *Economic Journal* ('Industrial Fluctuation and the Natural Rate of Interest') is illuminating, for it clearly marks the transition from the old to the new methods of thought. (Kaldor, 1951 cited in Young, 1989, p. 57)

In this way the *General Theory* was one of three contemporaneous theories, and hence was rivalled by both classical and neo-classical theory. The response of the classical economists to the publication of his book was of almost unanimous hostility. Across the world, most academic economists refused to accept either Keynes's theoretical reasoning or his practical conclusions. Yet L. C. Robbins's 1932 assertion that "economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses" saw classical economists essentially distancing themselves from the practical failings of economic theory with which Keynes was specifically concerned. This state of affairs was not lost on reviewers of the *General Theory*:

There has been of late years a general trend among economists, led by what might be described as the London School, away from the real world of economic affairs. A certain scorn even that economists should concern themselves with 'realistic economics' breathes in the whole tone of the manifesto of this school, Professor Robbins's *Nature and Significance of Economic Science*. (A. L. Rowse, September 1936, re-printed in Backhouse, 1999, p. 108)

Instead the *General Theory* was first criticised in detail against the 'neo-classical' theory. The few economists that engaged in any kind of debate therefore judged Keynes's theory against a theory that had little firmer grounding than his own theory and that had itself been subject to only limited critical evaluation. Over the years following the publication of the *General Theory*, many prominent economists made contributions to this neo-classical theory and pursued this approach to the critique of the *General Theory*. The monetary aspect of the theory was and still is known as 'loanable funds'. The various theories of A. H. Hansen, R. F. Harrod, J. R. Hicks, J. E. Meade, F. Modigliani and P. A. Samuelson are all developments of this neo-classical approach. Hicks's 1937 'Mr. Keynes and the "Classics"; a Suggested Interpretation' is only the best known of these contributions.

The universally recognised paradigm shift to ‘Keynesian’ economics at the end of the War reflected the ‘formal’ endorsement of this – now, simultaneous equation – model, and the dismissal of the *General Theory*. On a theoretical level, ‘Keynesian’ economics resolved all of the theoretical disputes between Keynes and his detractors in favour of his detractors in a manner that essentially denied that the disputes had existed. On a practical level, ‘Keynesian’ economics supported the re-positioning of the policy debate from the role of monetary policy to the role of fiscal policy – a re-positioning that has held firm to the present day. As a consequence, the profound theoretical contributions and practical conclusions of the *General Theory* have been lost, and, outside post-Keynesian economics, are yet to be subject to detailed and impartial critique.

1.3 Outline of the work

The discussion is divided into two parts. The first examines Keynes’s theory and the Keynesians’ theory in the broadest sense. Chapter 2 aims to correct fundamental misconceptions about the nature, methodology and policy aims of Keynes’s economics. The *General Theory* offered a coherent theory that did not discard equilibrium and/or market mechanisms, but that re-evaluated their role in the context of the monetary nature of economies that the classical theory had failed to acknowledge. As above, central to this theory and policy was the role of the rate of interest. The last section of Chapter 2 offers an overview of these and other monetary policy initiatives. Chapter 3 traces the development of ‘Keynesian’ economics from Robertson’s and Hawtrey’s early contributions, through the critical response to the *General Theory*, to Hicks and finally to Modigliani. The chapter ends with a discussion of ‘Keynesian’ policy. Chapter 4 examines the response of Keynes and his true supporters to these early developments of ‘Keynesian’ economics. Lastly, Chapter 5 traces how the transition from Keynes’s economics to ‘Keynesian’ economics was actually effected in practice, and how the ‘Keynesians’ eventually surrendered their own theory to the monetarist re-assertion of the classical economics. The chapter also

records the quiet but ever-present opposition to the manner in which Keynes's economics and policy were distorted and abandoned.

The second part of the thesis aims to elaborate Keynes's own theory more fully. The presentation follows a logic based on a view of the *General Theory* as part of a continuous theoretical development beginning with his earliest contributions. (This logic is also more fully explained in Chapter 2.) After an introductory chapter setting out a framework for his theory, Chapter 7 emphasises the origin and foundation of that theory as monetary economics. Chapter 8 then argues that the key step to the *General Theory* from all his previous work was the 'discovery' of the identity between saving and investment. Chapters 9 and 10 then cover the core of the *General Theory* itself: the liquidity preference theory of interest and the theory of activity as a whole – including the economic cycle.

The discussion in Chapter 10 concludes with an application of Keynes's theory to economic activity in the twentieth century. The essential practical conclusion is that what the International Labour Organisation (ILO) describes as the "pervasive worldwide employment problems" (ILO, 2003, 'overview') and the precarious financial condition of the world's richest economies are consequences of the financial liberalisation effected at the start of the 1980s. The challenge to policymakers, as it was in the 1930s, is to reverse this process. If the situation continues to be ignored, this interpretation of Keynes's theory does not rule out an even fuller economic crisis.

1.4 A note on the *Collected Writings*

The claimed restoration and elaboration of Keynes's argument does not rely exclusively on the *General Theory* but draws on the full range of Keynes's writings, beginning with his earliest contribution to monetary theory in March 1909. The most important source for this task is obviously *The Collected Writings of John Maynard Keynes (CW)* under the main editorship of D. E. Moggridge. While the source is absolutely invaluable, attention must be drawn to a number of limitations.

In the first place, *CW* is not a complete reproduction of all of Keynes's economic writing. While omissions are understandable given the sheer volume of Keynes's work and of his private correspondence, it is of concern that a number of the papers omitted are, in my view, of significant importance. In most cases my attention has been drawn to the existence of unpublished material through their use in the works of other authors (sometimes Moggridge's own). By definition, any use of these papers in published work emphasises their non-trivial nature (insofar as published work is not trivial). The extensiveness of the omissions might be judged by the number of citations made in the course of the thesis that have been noted as not published in *CW*.

An area of particular concern is the period between the publication of the *Treatise* and the *General Theory*. While *Volume XIII* is dedicated to papers from this period, there is very little material relating to the substantive steps towards his *GTOEIM* and hence very little detailed discussion of the implications of these crucial theoretical developments. In particular there is no material relating to the elaboration of the notion of multiple equilibrium, very little detail on the savings-investment relationship and, most critically of all, virtually nothing as Keynes developed the theory of liquidity preference. It may be that Keynes did not correspond during this period; but this is regarded as highly unlikely given the wider evidence of the extensiveness of his written dialogue.

Apart from the content, the presentation of Keynes's theory is also important. Perhaps unsurprisingly, the overall presentation reflects a pre-disposition to the 'Keynesian' depiction of Keynes's economics. Keynes's early work on monetary theory is scattered throughout the series – his early monetary lectures are included as the last chapter of *Volume XII*, his first papers on the monetary affairs of India are presented as Chapter 1 of *Volume XI* and his reviews and associated early published material concerning monetary theory appear as Chapter 5 of the same volume. His later papers on India (from 1906) are in *Volume XV*. The arrangement is such that the early monetary work bears very slight formal relation to the central elaboration of his theories in *Volumes XIII* and *XIV* and *XXIX*. Moreover the more detailed presentation of the material between the

Treatise and the *GTOEIM* is also in accordance with the Keynesian perspective. All of the material relating to the savings-investment relationship is presented in a chapter 'Arguing out the *Treatise*', with the implication that it is not relevant for the *GTOEIM*. The next chapter, 'Towards the General Theory', then leads on the work of the so-called Cambridge Circus and their role in the 'discovery' of 'output adjustment'.

This state of affairs is a significant complicating factor in any wider discussion of the broader theoretical and contextual considerations of the *General Theory*. In the event that the interpretation here is correct, it may be a significant contributory factor to our being in the dark for so long.

Chapter 2

The Nature, Methodology and Policy Aims of Keynes's Economics

It should be obvious that the 'Proposition' put forward in Chapter 1 involves a far more substantial bastardisation of Keynes's economics than is usually understood by Joan Robinson's famous phrase. It is argued that the bastardisation should be seen from four perspectives: the nature of the theory, the nature of policy conclusions, the depiction and logic of the theory, and the fundamental historical significance of the conclusions. This chapter briefly characterises each of these perspectives, each serving at the same time as a foundation for the discussion that follows.

2.1 The nature of the theory

The bastardisation of the nature of the theory operates on three general levels. First, there is a failure to depict Keynes's economics as monetary economics. Second, there is a betrayal of the role of market mechanisms and associated role of 'equilibrium' that underpinned the operation as well as the depiction of the economy in his theory – mechanisms that Keynes also saw as desirable and efficient. Third, the Keynesian model entirely neglects Keynes's profound

innovation of recognising uncertainty and incorporation of expectations in his characterisation of a real economy.

The whole body of Keynes's economics arose from recognition that classical theory did not provide an adequate representation of economic activity because it failed to take into account the nature of money. Economies were not based on the commodity money assumed by classical economics, but on *bank money*. Keynes recognised that the evolution from commodity money to bank money had profound implications for economic theory, economic activity and economic policy. All his theories and practical measures were underpinned by a progressively more sophisticated analysis and treatment of this changed nature of money. The *General Theory* was, and remains, the culmination of this process and the pinnacle of monetary analysis. An elaboration of Keynes's understanding of these processes and the evolution of his monetary theory are set out in Chapter 7, a discussion that clashes strongly with perceptions created by the Keynesian economists.

Throughout his life, Keynes saw the failure of the economic system arising from this non-monetary nature of classical economics, rather than inherent failures in the market system itself. The attribution of an anti-market position to Keynes stems in turn from the failure to recognise his own monetary stance. The appropriate question is whether Keynes considered that the operation of a market economy would be optimal *when* monetary problems had been remedied. This is less a theoretical question, more a matter for empirics and for instinct. But the underlying market-based and liberal nature of Keynes's economics can not be in doubt and is well illustrated by three statements he made in the last year of his life.

The first statement was made in the course of his famous House of Lords speech defending the Bretton Woods and war loan agreements. Keynes saw the proposals as "... an attempt to use what we have learnt from modern experience and modern analysis, not to defeat, but to implement the wisdom of Adam Smith" (18 December 1945, CW XXIV, p. 621). The second statement was in his final (and posthumously published) *Economic Journal (EJ)* article:

I must not be misunderstood. I do not suppose that the classical medicine will work by itself or that we can depend on it. We need quicker and less painful aids of which exchange variation and overall import control are the most important. But in the long run these expedients will work better and we shall need them less, if the classical medicine is also at work. And if we reject the medicine from our systems altogether, we may just drift on from expedient to expedient and never get really fit again. The great virtue of the Bretton Woods and Washington proposals, taken in conjunction, is that they marry the use of the necessary expedients to the wholesome long-run doctrine. (CW XXVII, p. 445)

The third statement was in the course of what may have been his last speech, made to the Political Economy Club in Cambridge (the extract is taken from his notes for the speech):

Assuming that the policy of deliberate economic isolationism should be rejected, have we nevertheless agreed to return to a version of 19th century *laissez faire* which is bound to break down?

I consider this a grossly ignorant misunderstanding of what has happened.

The classical doctrine

Supplemented by exchange variations and overall import control. This seems to me the modern version of economic liberalism. My H of L speech. To that charge I would plead guilty. I can easily see that it is not acceptable to the totalitarians in our midst, but it seems to me soundly consonant with our national attitudes, instincts, principles of self-interest. A Totalitarian economy must be a large one. The British Empire for obvious reasons not a suitable unit for totalitarian experiments.

Here is a genuine attempt at agreed rules and principles of action. My complaint would be that they do not go far enough in the liberal direction ... But they go a long way. The opposite of the law of the jungle. (Moggridge, 1992, p. 824)¹

Choosing to assert market mechanisms in such a robust manner may have been due to recognition that economic policy and theory were becoming dominated by those who preferred non-market solutions to the Economic Problem. In theoretical terms – and using the analogy of Einstein’s theory of relativity² – he

¹ The existence of this speech is revealed through Moggridge (*ibid.*) citing this extract as follows: “Yet the comments [in his House of Lords speech] were mild compared to his private remarks to the Political Economy Club in Cambridge, where his notes ran ...”. There is no date reference, but the extract occurs in “The Last Months” chapter some 12 pages from the end of the book. It was clearly one of Keynes’s final speeches and quite probably his last. The notes are not reproduced in *Collected Writings*.

² As pointed out by Togati (1998) and James Galbraith (1996).

saw the *General Theory* as a wider theory of economic activity, of which the existing classical theory was a special case: "I shall argue that the postulates of the classical theory are applicable to a special case only and not to the general case, the situation which it assumes being a limiting point of the possible positions of equilibrium" (CW VII, p. 3). In Chapter 23 he elaborated his attitude to classical theory and doctrine in the course of a discussion about the theory and policy of the so-called 'mercantilists':

Regarded as the theory of the individual firm and of the distribution of the product resulting from the employment of a given quantity of resources, the classical theory has made a contribution to economic thinking which cannot be impugned. It is impossible to think clearly on the subject without this theory as part of one's apparatus of thought. I must not be supposed to question this in calling attention to their neglect of what was valuable in their predecessors. (CW VII, pp. 339-40)

Keynes's theory accepted the notion of equilibrium, and what is now known as the microeconomic aspect of classical theory. However the translation from microeconomic to macroeconomic was more complex than the classical economists assumed.

In addition, acceptance of these basic classical principles was set against a development of theory of the most substantial importance. A significant methodological difference between both the classical theory and the *General Theory* and the Keynesian theory and the *General Theory* was his treatment of what he referred to as 'uncertainty'. A key purpose of Keynes's famous 1937 article in the *Quarterly Journal of Economics (QJE)* was to emphasise this departure and the significance of the phenomenon:

Thus the fact that our knowledge of the future is fluctuating, vague and uncertain, renders wealth a peculiarly unsuitable subject for the methods of the classical economic theory. ...

By 'uncertain' knowledge, let me explain, I do not mean merely to distinguish what is known for certain from what is only probable. The game of roulette is not subject, in this sense, to uncertainty; nor is the prospect of a Victory bond being drawn. Or, again, the expectation of life is only slightly uncertain. Even the weather is only moderately uncertain. The sense in which I am using the term is that in which the prospect of a European war is uncertain, or the price of copper and the rate of interest

twenty years hence, or the obsolescence of a new invention, or the position of private wealth owners in the social system in 1970. About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know. (CW XIV, pp. 113-14)

Keynes saw that this uncertainty allowed economic activity to be dictated by the expectations – or ‘animal spirits’ – of economic actors.³ More specifically, uncertainty underpinned both the marginal efficiency of capital (*mec*) and liquidity preference schedules. As a consequence, the level of investment and the rate of interest were determined partly by expectation. The *QJE* article was ostensibly published in response to four specific critiques of his book but, as will be discussed, the intention may also have been its far more general relevance.

The more general impact of the identification of uncertainty was a change in the very methodology of economic analysis. The *General Theory* was a discursive analysis; it rejected the mathematical approaches of Ricardo and Walras and instead chose the path of Smith, Malthus and Marshall. This change in methodology was not a matter of preference but, given the nature of uncertainty, of necessity. Keynes considered that relations involving uncertainty could not be stated and solved as a system of simultaneous equations. This is not to say that his argument was less formal or rigorous – it was just based on a different methodological approach. Keynes’s methodology analysed the operation of a free market economy using logic and a method of equilibrium under uncertainty. A logical organisation allowed him to compartmentalise key phenomena and treat them separately, but without losing the essential interdependence of all economic processes. Each ‘compartment’ had distinct supplies and demands that could be ‘solved’ as an equilibrium to determine key economic quantities. The compartmentalisation revealed three key markets: interest, investment and production. The changes to the equilibrium in one market would then have repercussions on equilibria through all other markets. While no explicit algebraic solution to the system is possible, the method allows the relative effects of different circumstances – and in particular different policy initiatives – to be

³ Hicks (1936, pp. 239-40) emphasised the importance of “expectations of the future” to Keynes’s theory in his review; unfortunately, *IS-LM* did not adopt this method.

analysed. In practical terms, the technique is sufficient to draw the most profound conclusions.⁴

At the end of the 'Preface', Keynes brought together each of these three aspects of the nature of his economics:

A monetary economy, we shall find, is essentially one in which changing views about the future are capable of influencing the quantity of employment and not merely its direction. But our method of analysing the economic behaviour of the present under the influence of changing ideas about the future is one in which depends on the interaction of supply and demand, and is in this way linked up with our fundamental theory of value. We are thus led to a more general theory, which includes the classical theory with which we are familiar, as a special case. (CW VII, p. xxii)

2.2 The logic and depiction of the theory

The bastardisation of Keynes's theory can be addressed in two parts: first, the logic of the *General Theory*. Keynes was concerned with explaining the *cause* of the Economic Problem. From the perspective of theory, he was concerned with why free market economies did not function according to the stable and optimal equilibrium that the classical theory predicted. 'Keynesians' on the other hand accepted and promoted Keynes's cure for an economy in recession, but largely left aside his theoretical analysis and practical policies aimed at explaining and preventing recession happening in the first place. As a consequence, 'Keynesian' theory addresses a specific pre-occupation with the effectiveness of government expenditure. With recognition of Keynes's wider goal, the interpretation of his whole theory is changed. It must not be approached through *IS-LM* – a framework for analysing/contrasting only this impact of government spending or of an 'injection of money' – but as a theory that attempts to 'correct' the classical depiction of the behaviour of a free market economy, and that provides a theory

⁴ Keynes did not aid understanding by the use of graphical techniques. As will be discussed in chapter 8, the only graph he used in the *General Theory* explained the failings of classical theory; it was not part of the theoretical scheme of the *General Theory*. Nevertheless, in my view, graphical illustrations can usefully be adopted and I have done so.

of economic activity as a whole. According to the proposition in Chapter 1, the logic of this theory should place the rate of interest in the position of central importance.

In terms of historical development, the rate of interest became of central importance to both theory and practical policy by the time Keynes was completing his *Treatise on Money*. In Chapter 37 he wrote as follows:

I am writing these concluding lines in the midst of the world-wide slump of 1930. ...

Thus I am lured on to the rash course of giving an opinion on contemporary events which are too near to be visible distinctly; namely, my view of the root causes of what has happened, which is as follows.

The most striking change in the investment factors of the post-war world compared with the pre-war world is to be found in the high level of the market-rate of interest. (CW VI, p. 377)

After the publication of the *Treatise* on 31 October 1930, he re-asserted the point in his June 1931 Harris foundation lectures in the United States (see Chapter 10), and next in the March 1932 *EJ* in a debate motivated by the *Treatise*. Under the title 'Savings and Usury', Keynes allowed himself the last word:

Personally I have come to believe that interest – or, rather, too high a rate of interest – is the 'villain of the piece' in a more far-reaching sense than appears from the above. But to justify this belief would lead me into a longer story than would be appropriate in this place. (CW XXIX, p. 16)

Four years later, the 'longer story' was published as the *GTOEIM*. Just over one year before publication, Keynes foreshadowed what he saw as the nature of the flaw of classical theory in *The Listener* of 21 November 1934:

There is, I am convinced, a fatal flaw in that part of the orthodox reasoning which deals with the theory of what determines the level of effective demand and the volume of aggregate employment; the flaw being largely due to the failure of the classical doctrine to develop a satisfactory theory of the rate of interest. (CW XIII, p. 489)

In the *General Theory* itself, Keynes's discussion of the mercantilists and classical theory re-iterated this position and moved on to address the practical implications of the faulty theory of interest:

Thus, the weight of my criticism is directed against the inadequacy of the *theoretical* foundations of the *laissez-faire* doctrine upon which I was brought up and which for many years I taught; – against the notion that the rate of interest and the volume of investment are self-adjusting at the optimum level, so that preoccupation with the balance of trade is a waste of time. ...

Under the influence of this faulty theory the City of London gradually devised the most dangerous technique for the maintenance of equilibrium which can possibly be imagined, namely, the technique of bank rate coupled with a rigid parity of the foreign exchanges. For this meant that the objective of maintaining a domestic rate of interest consistent with full employment was wholly ruled out. Since, in practice, it is impossible to neglect the balance of payments, a means of controlling it was evolved which, instead of protecting the domestic rate of interest, sacrificed it to the operation of blind forces. Recently, practical bankers in London have learned much, and one can almost hope that in Great Britain the technique of bank rate will never be used again to protect the foreign balance in conditions in which it is likely to cause unemployment at home. (CW VII, p. 339)

The real logic of the *General Theory* should pivot around his proposed new theory of interest: the theory of liquidity preference. It should build up to the practical conclusions: first, how it was that the rate of interest could be set; second, why it should be set at a low level; and third, the consequences of failing to do so.⁵

This logic is the logic used in the rest of this thesis. It is a logic that goes wider than the *General Theory* itself and encompasses theory and policy set out both before and after publication. As will be discussed in Chapter 4, this reflects a distinction between the book and the wider theoretical construct that is the *General Theory*. Henceforth, when it is important to distinguish between the two, *GTOEIM* will be used to denote the book and *General Theory*, the broader

⁵ The logic was, of course, also important from a scientific and methodological perspective: "It seems to me that economics is a branch of logic, a way of thinking; and that you do not repel sufficiently firmly attempts à la Schultz to turn it into a pseudo-natural-science. ... The grave fault of the later classical school, exemplified by Pigou, has been to overwork a too simple or out-of-date model, ... Economics is a science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world. It is compelled to be this, because, unlike the typical natural science, the material to which it is applied is, in too many respects, not homogenous through time. The object of a model is to segregate the semi-permanent or relatively constant factors from those which are transitory or fluctuating so as to develop a logical way of thinking about the latter, and of understanding the time sequences to which they give rise in

argument. The *GTOEIM* might better be regarded as setting out a very large part of the theoretical detail of the ‘argument’. It does not constitute a complete statement of the argument as a whole. In contrast, the aim of this thesis is to set out this broader logical structure and work according to it, but to some extent avoid the detailed technical analysis of components of his theory. This structure is briefly characterised below, serving also the purpose of providing a more detailed outline of the theoretical work.

In logical terms, each chapter of Part II sets up a proposition that – if accepted – leads to the next step in the following chapter, and so on. There is first a brief introduction on how Keynes’s economics can be viewed in terms of short- and long-period analysis. The content and aim of Chapter 7 has already been noted: in terms of the logic, it sets out the monetary ‘priors’ to the *GTOEIM*. These priors were not addressed or articulated in any of his presentations of the *General Theory*, but were discussed in great detail in the *Treatise*.

The broader historical development of monetary theory is also closely related to the logic of the presentation of the *General Theory*. It is argued that the science of monetary theory can usefully be viewed as taking two major theoretical steps during Keynes’s life. The first of these advances was the widespread recognition and interpretation of credit and deposit creation, and the associated characterisation of the behaviour of representative money in contrast to commodity money. This advance was not made by Keynes, but elaboration, development and application of this advance underpinned his work from his first published paper through to the end of his life. It was however so embedded in his research that from the *GTOEIM* he never emphasised the profound importance of the advance relative to the treatment of money in classical theory. Then, as now, classical theory and policy conclusions are relevant only for a commodity money economy.

Chapter 8 deals with what is argued should be regarded as a – if not *the* – foundation for the *General Theory*: the recognition that, in a bank money

particular cases” (to R. F. Harrod 4 July 1938, CW XIV, pp. 296-7).

economy, the relationship between the macroeconomic aggregates saving and investment was identity rather than equilibrium. Recognition of this relationship set Keynes firmly away from the *Treatise*, opened the path to recognition of the multiple equilibrium nature of the economic system, re-enforced the leading role for investment, and led to the decisive rejection of the classical theory of interest. Linking this development with the first, the release of the saving constraint on economic activity through the existence of bank money was finally recognised to affect not only prices in the long run – as he thought up to and including the *Treatise* – but also output and employment.

Chapter 9 deals with the central component of the *General Theory*: the liquidity preference theory of interest rate determination. In logical terms, the saving-investment identity dismisses the classical theory of interest and, as Keynes put it in an *EJ* paper in 1937, leaves the rate of interest “in the air” (CW XIV, p. 212). An alternative theory of interest is therefore required. His theory put credit to one side and gave centre stage to phenomena arising from the use of money as a store of value. Analysis of these phenomena – the speculative, precautionary and transactions motives – led Keynes to his conclusion that there was no reason that the rate of interest prevailing in a free market economy should be the rate appropriate for full employment. The liquidity preference theory then led to the prospect of using debt management to manipulate interest rates, and the chapter draws heavily on his later proposals to the 1945 National Debt Enquiry to achieve this end.

In terms of the wider characterisation of the development of monetary economics, the analysis and treatment of money as a store of value constitutes the second advance of monetary theory. This was Keynes’s substantial contribution to monetary theory; it follows, and is wholly complementary to, the first advance.

Chapter 10 deals with the interaction between the monetary theory developed in Chapters 7 to 9 and the ‘real’ economy. As with the monetary theory, the central component is the rate of interest. While the level of activity in a market economy is due to the theory of effective demand; the level of effective demand is

underpinned by the effect of the rate of interest on the level of investment. The fuller theory of investment demand as an interaction between the rate of interest and the marginal efficiency of capital (*mec*) that reflects businesses' expectations of the yield on investment in an uncertain future, then explains the economic cycle. The discussion attempts to incorporate Keynes's theory of the economic cycle more formally into the argument as a whole. In the *GTOEIM*, this latter theory is presented using tools of the previous chapters – but is not rigorously extended and incorporated into the broader framework. Furthermore, it is not discussed in terms of any notion of 'equilibrium'. It is argued that Keynes's under-emphasised notion of a 'correct *mec*' is central to his theory. The 'correct *mec*' is regarded as defining a underlying (perhaps, long-period) equilibrium against which any short-period outcome determined by the theory of effective demand must be understood. This equilibrium-based framework can then be used to elaborate the economic cycle process. It is proposed that, in a 'boom', an underlying equilibrium exerts its pressure through an unsustainable build-up of debt which leads eventually and inevitably to financial and real collapse. The case for cheap money policy is then brought forward more fully than in *GTOEIM*. First, Keynes's rather throwaway argument that a low rate of interest can prevent the economic cycle is elaborated. Second, given the prevention of the economic cycle, the role of the authorities in economic activity is identified as the ability to manipulate the underlying equilibrium.

In this way, matters of monetary theory are brought full circle. The transmission mechanism between credit facilitated short-run outcomes and an underlying equilibrium, in part determined by a monetary rate of interest, is seen to be excessive debt.

The second aspect of the Keynesian bastardisation of the theory is the presentation of each of the specific components discussed above. Theoretical detail was diminished through paying virtually no attention to monetary mechanisms, the rejection of the savings-investment identity and the incorporation of a 'loanable funds' theory of interest. All components were then brought together as a simultaneous equation model that did not take into account uncertainty. These Keynesian treatments of each of the components are also

addressed in each of the chapters outlined above. Apart from common terminology and a treatment of aggregate demand, the two theories are incompatible in virtually every way.

2.3 The depiction of economic policy

On Keynes's death, E. A. G. Robinson paid tribute to a consistency of strategy that is not generally recognised as due to Keynes at all:

Indeed, it is difficult not to be impressed by the consistency of his main strategic objectives: the full employment of resources; the achievement of balance of payments for all countries by methods that would not be inconsistent with full employment; as a means to this, a system of exchange rates that would combine the short-term virtues of fixity and predictability with the long-term virtues of flexibility; and, as a means to full employment, low interest rates. (Robinson, 1947, p. 45)

Only Keynesian economics was pre-occupied with fiscal policy. From his earliest discussions of the Indian economy, Keynes's attention was fixed on monetary policy. As he wrote, monetary policy was dominated by the gold standard. But events were revealing flaws in the use of gold from both domestic and international perspectives. His early papers and first book concerned what amounted to progressive experiments on the part of the Indian authorities with monetary and exchange arrangements. Then as a senior HM Treasury official in W.W.I he was directly involved with the management of policy under an effective suspension of gold as an internal standard, and exchange management arrangements to preserve a fixed exchange rate for sterling. Following his resignation from HM Treasury after the war, he vigorously opposed the re-establishing of the gold standard. Instead he began to advocate alternative domestic monetary policies based on credit control through the discount rate, and international policies based on a fuller development of exchange management techniques. (These early initiatives are discussed more fully in Chapter 7.)

The return to gold went ahead, but as national and global conditions deteriorated the authorities began to seek his advice. First, his membership of the Macmillan

Committee and his role in drafting its 1930 report suggested the beginnings of a change in attitude. Second, the start of the great depression and Britain's suspension of gold convertibility on 21 September 1931 seemingly confirmed Keynes's worse predictions. Politically it was no longer possible and economically it was no longer sensible to ignore his advice.

On 26 November 1931 he was brought into a sub-Committee of the Prime Minister's newly established Economic Advisory Council: the Committee on Financial Questions. Alongside proposals for exchange arrangements, Keynes straight away began to advocate interest rate cuts or *cheap money*. On 10 February 1932 he contributed 'Supplementary Draft Paragraphs' for the Committee's Report. The memorandum proposed a summary paragraph, commencing as follows:

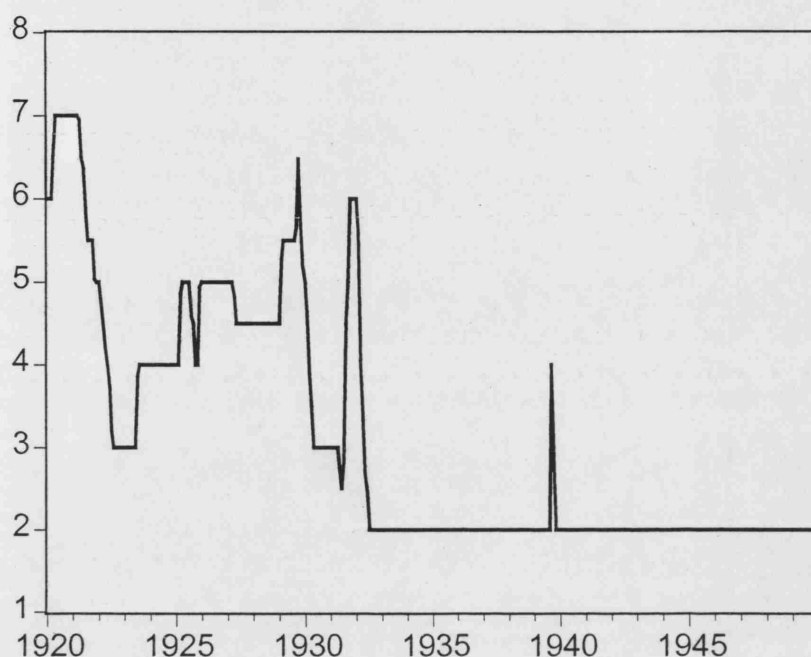
31. We may summarise our conclusions as follows: –

- (i) we are of opinion that the position of sterling is fundamentally sound, and that it is likely to develop considerable latent strength in the near future.
- (ii) We are of opinion that the time has come when a policy of gradually reducing Bank Rate might safely and advantageously be pursued.⁶

On 18 February 1932, a cut of Bank rate to 5 from 6 per cent marked the start of the cheap money policy and the start of Keynes's impact on economic policy. Further Bank rate cuts followed rapidly. As Figure 2.1 shows, economic activity in the 1930s and 1940s was subsequently conducted at a Bank rate of 2 per cent.

⁶ Source The National Archives: Public Record Office (TNA:PRO) CAB58/169; the paper is not recorded in *Collected Writings*.

Figure 2.1: Bank rate, 1920-50

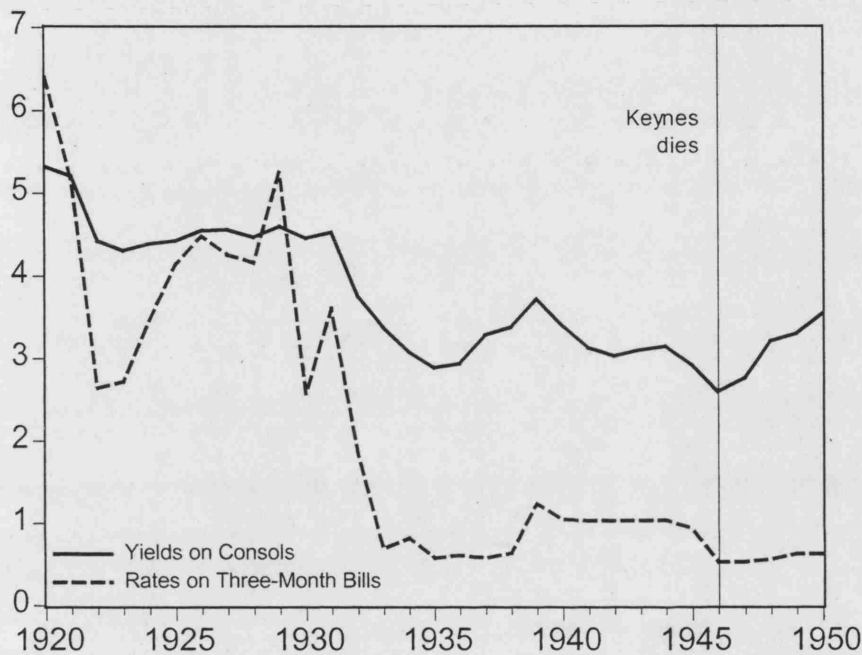


Action on longer-term rates began with the conversion of the war debt from 5 per cent to 3½ per cent in the second half of 1932. Over the next years policymakers began an *ad hoc* (and not wholly enthusiastic or consistent) reduction of interest rates across the range of maturities.

With the *General Theory*, cheap money moved from a necessity due to circumstance to the essential ingredient for prosperous economic activity. Full control across the spectrum of interest rates could be achieved with changes to debt management and monetary policy. Keynes's (rarer) public activity after the publication of the *General Theory* saw him argue for further direct action on long rates (particularly as they had begun to drift up, see Figure 2.2 below). The start of W.W.II led to Keynes's proposal to aim debt-management policy at the specific long-term rate of 2½ per cent. With the end of the 'phoney' war, Keynes returned to the Treasury for the first time since the Versailles Conference, and became directly involved with the policy that he had advocated (the agreed rate was 3 per cent). The authorities managed the 'three per cent war' with ease, in spite of the phenomenal increase in public borrowing. In turn, the wartime

developments formed the background to Keynes's most substantial formalisation of his monetary and debt management policies at the April / May 1945 National Debt Enquiry (NDE).

Figure 2.2: Interest rates on UK Government bonds and bills, 1920-50



Source Friedman (1982, table 4.9)

This enquiry arose as the coalition Government began to look to economic policy after the war; the specific issue being the measures available for reducing the post-war burden of national debt interest. But the scope was much wider: at these meetings, Keynes was offered the opportunity to discuss all aspects of post-war policy, in particular the continuation of cheap money policy:

Hopkins^[7] was soon persuaded that there was a case for an early inquiry by a committee of officials and economists, which would also consider the future of the cheap money policy. On the last subject, Hopkins noted, 'Lord Keynes has promised to produce ... some far-reaching proposals.' (Howson, 1993, p. 45)

⁷ Richard V. N. Hopkins, the Permanent Secretary to the Treasury from 1942.

At these meetings, Keynes outlined his economic theory and put forward a complete framework of practical debt and money management measures that would facilitate a cheap-money policy after the war. These proposals went on to underpin the cheap-money policy of the post-war Labour Government under its successive Chancellors: Hugh Dalton, Sir Stafford Cripps and Hugh Gaitskell. The official report of the enquiry by Hopkins constitutes the handbook of practical policy measures that the *General Theory* deliberately was not (and is included as an appendix to this chapter).

The far-reaching influence of domestic cheap-money policy recommendations made at the November 1931 Committee on Financial Questions was paralleled by Keynes's proposals for exchange arrangements. The Exchange Equalisation Account (EEA) brought into effect the currency management policies that he had long advocated. This mechanism was first proposed specifically in a memorandum of 16 November 1931, 'Notes on the Currency Question', produced in response to a specific request from F. W. Leith-Ross.⁸ While the EEA did not go as far as Keynes's proposals, it introduced the world to *de jure* exchange management. Under its arrangements the sterling exchange was to be managed by intervention in the markets rather than by manipulation of the Bank rate. Over the next months the 'Sterling Area' came into existence as country after country left the gold standard, adopted currency management arrangements, and pegged their exchange rates to sterling. By early June 1932, Hopkins (then the second secretary to HM Treasury) was observing how the "greater part of the world" had "managed exchange currencies" (TNA: PRO T175/157).

As the collapse of the gold standard gained momentum, a World Economic Conference was scheduled for July 1933. In advance of this occasion, Keynes sought to influence the global arrangement in particular through initiatives set out in his pamphlet *The Means to Prosperity* (CW IX, pp. 335-72). While these initiatives were resisted, the Conference was outstanding for the confrontation of the financial establishment's undimmed support for gold and the newly elected F. D. Roosevelt's outright rejection of gold. A draft resolution advocating the "re-

⁸ HM Treasury Deputy Controller of Finance, 1925-32, and the Chief Economic Advisor to the

establishing” of gold was submitted for Roosevelt’s approval, and was met with the historic telegram (excerpted):

I would regard it as a catastrophe amounting to a world tragedy if the great Conference of nations, called to bring about a more real and permanent financial stability and a greater prosperity to the masses of all nations, should, in advance of any serious effort to consider these broader problems, allow itself to be diverted by the proposal of a purely artificial and temporary experiment affecting the monetary exchange of a few nations only.

... old fetishes of so-called international bankers are being replaced by efforts to plan national currencies with the objective of giving to those currencies a continuing purchasing power which does not greatly vary in terms of the commodities and need of modern civilisation. (from reproduction in *The Economist*, 8 July 1933, p. 64)

From then on America (aided by Keynes’s advice) took the lead in developing domestic monetary policies. In 1937, the total collapse of the gold standard led to France, the United States and the British Empire signing the ‘Tripartite Agreement’. Under this pact, a restoration in international financial co-operation began. Countries agreed to support and hence help manage each others’ exchanges as well as their own. In the next months the Netherlands, Switzerland, Greece, Latvia and Turkey were added to the membership of this new regime. At this point – the year after the publication of the *General Theory* – much of the world was pursuing cheap money with a supportive international *de jure* co-operation in exchange management.

On one hand W.W.II interrupted this evolution, but on the other it seemingly offered the opportunity to start from first principles. In the course of international summits relating to post-war economic policy, President Roosevelt offered Keynes the opportunity to develop a financial architecture for the world “excluding nothing in advance”.⁹ A few weeks later, Keynes described his plans to the head of the British Civil Service, Sir Horace Wilson:

... I have been spending some time since I came back in elaborating a truly international plan ... we should do well to start from some such

Government, 1932-46.

⁹ Roosevelt’s words, cited by Moggridge in CW XXIII, p. 228.

proposal as that which I have prepared or a variant of it, even though we may feel that it is probably too international and too Utopian to take form just in that shape in the real world. (19 September 1941, CW XXIII, p. 209)

The result was his plan for an international 'Clearing Union'. The wartime arrangements also led to a formalisation of a third and closely related strand of policy debate through this period: the embargo on overseas loans, or capital control. Official policy in this area had been *ad hoc* and subject to change; Keynes's own role in any arrangements is not well documented but his perspective is clear. At the end of W.W.I an embargo on overseas loans was in place, this was only repealed six months after the return to gold. The embargo was then put back in place for the conversion of the war loan in 1932 and remained in place from then on. Keynes regarded capital controls as essential to his domestic monetary policies in the post-war world.

As he suspected, his proposals were too Utopian for the real world. While the Clearing Union was put forward as the official position of the British Government, the primary 'inspiration' for the Bretton Woods Agreement was the rival US Treasury proposals for a 'stabilization fund'. Keynes's leading role in the negotiations did ensure that the final agreement offered economies a degree of autonomy and flexibility for the post-war era – but Bretton Woods was not the Clearing Union.

The Clearing Union was the culmination of Keynes's work: it applied his *General Theory* and associated practical experience in the widest possible context. These proposals may have been rejected on political grounds, they were *never* rejected or disputed on economic grounds. Indeed the comments on his scheme showed an unanimity of praise entirely denied to *GTOEIM* – as illustrated by comments from Robertson and Lord Catto (who would later become Governor of the Bank of England):

I sat up late last night reading your revised 'proposals' with great excitement, – and a growing hope that the spirit of Burke and Adam Smith is on earth again to prevent the affairs of a Great Empire from being settled by the little minds of a gang of bank-clerks who have tasted blood (yes, I know this is unfair!). (27 November 1941, CW XXV, p. 67)

Now that it has been published, I want to congratulate you on your Clearing Union. I have avoided adding myself to the critics. I felt sure your basic principles were sound and unalterable. I was content to let others, with greater theoretical knowledge than I have, do the criticising. As I expected, the final document does not differ at all in essentials (nor much even in detail) from your very early drafts which I was privileged to see and, if I may say so, to encourage. (30 April 1943, CW XXV, p. 236)

The proposals remain a legacy for a global market economy that is untested and virtually unknown.

Underpinning all of these initiatives was a vision of the potential of a free market economy that stands second to none. For Keynes there was no inevitability about the Economic Problem. The Problem was a problem of theory and technical policy. With these matters understood, a free market economy could operate in the optimal way claimed by the classics. On the other hand, the vision of the 'Keynesian' economists was as bleak as the vision of the classical economists. The perception created by the 'Keynesians' was of the inevitability of the business cycle, made emphatic by Hansen's 'stagnationist' thesis. In terms of policy, for the 'Keynesians' there was only the vague possibility that judicious use of government expenditure might make the uncertainties of economic life a little more bearable. Similarly, the *laissez-faire* environment advocated by classical and neo-classical economists such as Schumpeter, Hayek, Friedman and their successors really amounts only to accepting the *status quo* as the best that can be achieved. For Keynes the destruction of business celebrated by Schumpeter as 'creative' and the social costs of the unemployment accepted by Friedman as 'natural', were senseless and unnecessary. To celebrate them was to fail to understand the true potential of a free market economy.

2.4 The historical significance of the *General Theory*

At this point, the fourth element of the bastardisation should be obvious: the bastardisation of the profound social and economic consequence of Keynes's theory. The *General Theory* held out no less than a challenge to the historical imperative set out in the opening sentence of *The Communist Manifesto*: "[t]he history of all hitherto existing society is the history of class struggles" (Marx and Engels, 1967, p. 79). G. D. H. Cole was one of the few reviewers to capture the substance of this challenge: "Mr Keynes is evidently conscious of the supreme challenge which his new book offers to the entire economic practice of Capitalism, and to the relevance and conclusiveness of the fundamental economic theories put forward by most of his academic colleagues" (reproduced in Backhouse, 1999, p. 102).

For Keynes, capital *was* in conflict with labour but the *General Theory* offered an alternative interpretation of the nature of the conflict. Keynes saw labour and industry, with broadly the same interests, set against finance capital – the power and wealth controlling the financial policy of the world. His theory demonstrated that the interests and preferred policy of finance capital was inimical not only to labour, but also to industry and to economic activity as a whole.

Where Keynes and Marx departed most substantially was in the solution to the class struggle. For Keynes the solution to the class struggle was not abolition of the market system or private property in Communist Revolution, but the re-positioning of the financial system to serve the interests of industry and labour. The solution to the class struggle was the abolition – with a choice only over the pace – of usury within the market system. In the closing chapter, 'Concluding Notes on the Social Philosophy Towards Which the General Theory Might Lead', he discussed how finance capital (the 'rentier') would be vanquished:

Now, though this state of affairs would be quite compatible with some measure of individualism, yet it would mean the euthanasia of the rentier, and, consequently, the euthanasia of the cumulative oppressive power of the capitalist to exploit the scarcity-value of capital. Interest to-day rewards no genuine sacrifice, any more than does the rent of land. The

owner of capital can obtain interest because capital is scarce, just as the owner of land can obtain rent because land is scarce. But whilst there may be intrinsic reasons for the scarcity of land, there are no intrinsic reasons for the scarcity of capital. ...

I see, therefore, the rentier aspect of capitalism as a transitional phase which will disappear when it has done its work. And with the disappearance of its rentier aspect much else in it besides will suffer a sea-change. It will be, moreover, a great advantage of the order of events which I am advocating, that the euthanasia of the rentier, of the functionless investor, will be nothing sudden, merely a gradual but prolonged continuance of what we have seen recently in Great Britain, and will need no revolution. (CW VII pp. 375-6)

A. Hansen, regarded as the leading US Keynesian, opens his discussion of the last two chapters of *GTOEIM* as follows:

These chapters are brilliantly written and highly entertaining. Here Keynes lets himself go. Many would say that he threw caution to the winds and allowed his fancy to roam in an irresponsible manner. Still, a careful reading will disclose the fact that, while flying his kite, he has his feet on the ground at least a good deal of the time! He wrote while the world was still at peace and one could daydream and speculate about Utopia. Things have changed. (Hansen, 1953, p. 215)

Appendix 2.1

Copy of the National Debt Enquiry Report

The report was drafted by Sir Richard Hopkins, who was about to retire as Permanent Secretary to HM Treasury and be succeeded by Sir E. Bridges (the chair of the Committee passed from the former to the latter with the second meeting). According to the minutes of the meetings, the other civil servants on the Committee were Sir W. Eady, Sir H. Brittain, Sir C. Gregg, Mr. Chambers and, as joint secretaries, Mr. Cockfield and Mr Shillito; the academics were Lord Keynes, Professor Robbins and Mr Meade.

The copy used for the reproduction was on Treasury file T230/95; it belonged to 'Mr Meade' according to handwriting on front page and was dated 'May 15th 1945' in the same handwriting.

N.D.E. First Report

TOP SECRET

NATIONAL DEBT ENQUIRY – FIRST REPORT
THE QUESTION OF FUTURE GILT-EDGED INTEREST RATES
(For the Chancellor's eye only)

I

1. The matters dealt with in this report are very much in the province of the Bank of England (who have inter alia to manage the market) as well as the Treasury. There should be the greatest possible community of view between the two and we do not contemplate that any of our suggestions in this report should be determined without careful prior consultation.

II

2. We were asked to define more closely an appropriate Treasury policy in regard to cheap money with particular reference to statements in the White Paper on Employment Policy.

3. Employment White Paper references. The principle reference in the White Paper is as follows:- /a/

“58. In ordinary times the volume of capital expenditure is influenced by movement in the rate of interest. If the cost of borrowing money is high,

some projects which are not profitable at that rate will be held back. When it falls again, those projects will be brought forward and others will also be taken in hand.

59. For some time after the end of the war it will be necessary, as explained in paragraph 16, to maintain a policy of cheap money. Thereafter, the possibility of influencing capital expenditure by the variation of interest rates will be kept in view. The experience gained since 1931 of co-operation in this field between the Treasury and the Bank of England and the Joint Stock Banks will make it possible to operate a concerted and effective monetary policy designed to promote stable employment.

60. Monetary policy alone, however, will not be sufficient to defeat the inherent instability of capital expenditure. High interest rates are more effective in preventing excessive investment in periods of prosperity than are low interest rates in encouraging investment in periods of depression."

4. Paragraph 16, referred to in paragraph 59, includes the following:-

"(d) The use of capital will have to be controlled to the extent necessary to regulate the flow and direction of investment. Heavy arrears of capital expenditure on buildings, plant and equipment have to be overtaken, and construction on new development must begin. Without control, therefore, there would be a scramble to borrow, leading to a steep rise in rates of interest. The Government are determined to avoid dear money for these urgent reconstruction needs. In this period, therefore, access to the capital market will have to be controlled in order to ensure the proper priorities."

5. In these passages the emphasis is mainly, though not exclusively, on the rate of interest for long term loans as opposed to Treasury Bill rate and the rates for short term money generally, and the question of engineering a fluctuation of rates after an initial period in the interests of stable employment is tentatively raised.

6. General desirability of low rates. There is a wide measure of agreement, though not complete unanimity, in the present Committee ~~in~~ the view that on the whole, subject to the qualification dealt with in paragraphs 11 to 15 below, the desirable ideal for this country for a long time to come is not merely the continuance but even the reduction of the existing relatively low levels of interest rates both for long term and for short. 10

7. This view is based on two grounds, one economic and the other budgetary.

8. The Economic ground, stated briefly, is as follows. With the passage of time it may become increasingly difficult to match the amount of new investment with the country's will to save at a point sufficiently high to secure good employment. But the amount of new investment will be stimulated – and in a variety of regions materially stimulated – if loan money is cheap and share capital easily attracted on other than onerous terms.

9. The budgetary ground is a simple one. The real burden of the debt is represented, – especially from the point of view of the taxpayer who is primarily

concerned, – not by the figure representing its capital amount, but by the annual burden of the interest charge. A rise in the annual burden of interest as a result of increases in rates materialises as debt matures for repayment or new borrowing takes place, but a large part of the increased interest returns to the Government either in a form of income tax or surtax or as interest on national debt which is itself held by public departments. Assuming, for the purpose of this calculation, a total further net borrowing before 1950 of, say, £4,000 millions, a rise in the rate of interest of $\frac{1}{2}\%$ per annum from 1945 onwards on all forms of Government borrowing which would be affected might involve a net additional burden on the budget of the order of £35 millions a year by 1950 and £50 millions a year by 1955.

10. On these two grounds if they stood alone it might come to pass in the course of time that there was no limit, short of an almost nominal figure, to the level to which the desirable rate of interest at any rate on long term might fall. Nevertheless a definitive lower limit might then be set by social and psychological considerations such as the need to foster the habit of thrift – a principle long recognised in the specially favourable terms extended to small savers, – and to allow to individuals and to certain types of institutions that measure of independence which an income from interest ensures and which could not conveniently be assured in any other way.

11. The question of fluctuations. If it be agreed that low rates are generally to be desired there remains the question whether the low rates should remain as rigid as possible or whether on the contrary within the limits of a range which may be definitely described as low (and even above that limit in certain conditions) fluctuations should be permitted or engineered to act as a brake on temporary economic tendencies whether in an upward or downward direction. If so the further question arises whether these fluctuations would be better confined to the short term issues including the floating debt or should affect also the long term issues.

12. The transition period will be a period in which highly inflationary tendencies will be at work from causes already established. The problem will be increased by the large, though gradual, flood of new purchasing power represented by war gratuities and ultimately by the repayment of the post-war income tax credits. Against the dangers of inflation the measures available are the price and physical controls inherited from war time, high taxation and high interest rates. In fact the issue ultimately turns of the first of these. If either by misjudgement or owing to the pressure of an unintelligent public opinion the physical controls are prematurely relaxed or if by reason of practical difficulties in new and difficult conditions they fail of their object, the flood gates become open.

13. In these circumstances higher taxation though serving a certain purpose would be inadequate as an alternative defence. Already the prospect held out of modest relaxations has been welcomed with an avidity, and interpreted with a liberality, which is itself disturbing. The excess of the level of taxation which a Government might in gravely inflationary conditions feel obliged to maintain over what it would wish to ~~mention~~ would not, in the immediately ensuing conditions of extreme liquidity, yield a figure capable of having a sufficient

maintain

effect. The same applies in considerable measure to high interest rates which moreover, like high taxation, act blindly and without discrimination and, unlike high taxation, with an ill Budgetary effect. Any sharp increase in long term rates involves also a very marked fall in the quotation of existing long-dated stocks. Nor must the psychological effect upon war time savers be omitted from consideration.

14. This argument suggests a certain measure of caution in choosing the time for any important downward steps. Our proposals are set out in paragraphs 30 and 35.

15. In the more distant future after the transitional period the question both as regards taxation and interest rates will arise differently. The physical controls inherited from war time will no longer be in existence and conditions may arise in which fluctuations particularly in the short term rates are necessary or minor fluctuations generally are intrinsically unavoidable. This is a matter which, it seems, must be handled by trial and error when the time arrives: it is unsuitable for present public discussions unless in very vague and general terms.

16. Practical possibilities of securing low rates. While the general desirability of low interest rates may be agreed, the power to secure them may seem much more doubtful. As regards short money the passing of the gold standard and the contemplated permanent control of external capital movements remove the necessity for the use of the short term domestic money rate to maintain the gold stock. Apart from overseas holdings mentioned below, very short money is now chiefly lent by banks and similar large financial institutions, and the history of the past fifteen years, and particularly of the war period, sufficiently indicates the advent of a new era in which the central authorities, given close understandings with the banking and financial world, can expect to exercise control over the rate.

17. Thus the short-term rates on the floating debt in the hands of domestic holders need, subject to these necessary understandings, be no higher (except on the occasions when a stiffening of short-term rates is deemed to be a useful adjunct to other policies, e.g. to a policy of rationing the volume of credit) than is required to give a return adequate to meet the costs (with an appropriate profit margin) of market and banking machinery. If a special short term rate is required on overseas funds in London this could be arranged as was done at the end of the last war.

18. The long term rate is a more difficult question. It is understood that the following extract from Lord Keynes' work, *The General Theory of Employment, Interest and Money* (1937 [sic]) page 203, would now command a wide measure of agreement among economists:

"A monetary policy which strikes public opinion as being experimental in character or easily liable to change may fail in its objective of greatly reducing the long-term rate of interest, because (the amount of cash held to satisfy the 'speculative' motive)¹ may tend to increase almost without limit in response to a reduction in (the rate of

¹ In the text the words in brackets are represented by symbols. In this transcription the meaning of the symbols has been substituted.

interest) below a certain figure. The same policy, on the other hand, may prove easily successful if it appeals to public opinion as being reasonable and practicable and in the public interest, rooted in strong conviction, and promoted by an authority unlikely to be superseded.

"It might be more accurate, perhaps, to say that the rate of interest is a highly conventional, rather than a highly psychological[,] phenomenon. For its actual value is largely governed by the prevailing view as to what its value is expected to be. *Any* level of interest which is accepted with sufficient conviction as *likely* to be durable *will* be durable; subject, of course, in a changing society to fluctuations for all kinds of reasons round the expected normal."²

19. This passage must be read subject to the underlying assumption that the policy is well within the limits not only of public acceptability (as the text declares) but also of economic commonsense (as the text may be inferred to assume). On this basis the Committee feel justified on the evidence before them in taking the passage as a working guide, and they do so the more readily both because it appears to have been consistent with recent experience in varying conditions and because they know of no other general theory which begins to hold out the same prospect of achieving a very important objective.

20. If this be rightly judged, it will clearly be less difficult to exercise control when the State is a continuous and substantial borrower than when it is not, for in the former case it will be actively setting the pace in the terms which it has continuously on offer. The State has recently assumed extensive new obligations to raise capital required by Local Authorities; it will need to borrow for other purposes connected with employment policy; and there are many large maturities to be dealt with in the next ten years. For all these reasons it is likely that the State will be a large and continuous borrower for at any rate a long time to come.³

21. The question of the method of issuing loans and in particular the funding question. It does not appear to the Committee that the general objective of controlling the rate of interest would be readily attained, if attained at all, through the issue at varying intervals of large loans for immediate subscription. Rather they consider that for borrowing purposes, usually but not necessarily always including conversion purposes, the technique of tap issues of loans with differing maturities should be continued into peace time.

22. By this method the preference of the public rather than of the Treasury determines the distribution of new debt between different terms and maturities

² It will be noted that on the whole the tenor of the passage is against permitting important fluctuations round a general norm.

³ This must not be taken to imply that the State will continuously be a net borrower. While it is borrowing for productive and quasi-productive purposes, not only local authorities but also the State may be purchasing and redeeming securities on a large scale. The questions surrounding the Budget Sinking Fund ~~and~~ reserved for a separate report. In the transition period however *are* problems may be created by competition for money among industrial concerns and to meet this the technique of the Capital Issues Control will require to be adapted from time to time as may be necessary.

and the proportions in which maturing debt passes into a longer, a shorter or a similar class of security are determined by the public preference in the conditions of the time.

23. Accordingly an important departure from pre-war practice (followed in very different conditions) is involved. In past times it has been a pre-occupation of the authorities to fund short term and floating debt on to a long term basis, more especially until recently because of the difficulty of controlling the market in floating debt (at that time fairly widely held) in gold standard conditions. Today (as already noted) the domestic floating debt other than that held by the Government is in the main firmly held by banking and other financial institutions.⁴ The dangerous character of this type of debt disappears if there are adequate understandings with the financial world (including, it may be, appropriate regulations for continuing into the future the system of Treasury Deposit Receipts) to ensure the continuous holding of a large, and even increasing, floating debt in all circumstances.

24. At the same time the whole development of this matter would require to be carefully watched. The market and the public – and the House of Commons – are probably accustomed to looking upon the floating debt as the more dangerous kind of debt, partly for reasons already indicated, partly also because of the immediate and heavy effect on the Budget of any large increase in the short term rate if operating on great sums. Thus material increases of floating debt, unless accompanied by explanations of policy as may be necessary, might give rise to serious distrust.

25. General Conclusion. We have been led to form a series of views not completely consistent with the brief references to the matter in the Employment White Paper. Rather we say that the White Paper ought to mean that, subject to uncertainties as to the extent to which and the conditions in which moderate fluctuations should be admitted, (which uncertainties need not be brought too much into the open), the object of Government should be to maintain low interest rates, long and short, for as far ahead as can reasonably be the subject of discussion – certainly far beyond the transitional period. We do not however suggest that dogmatic conclusions should be laid down here and now for a long future about the rates of interest appropriate to different maturities. They should be fixed from time to time in the light of experience and should pay attention primarily (a) to the effects of Government policy on the market for borrowing by private institutions, companies and individuals and on the problem of controlling and maintaining the desired rate of investment at home and abroad, (b) to social considerations in the wider sense and (c) perhaps especially to the burden of interest charges on the Exchequer and other State funds and on Local Authorities. The terms of the issues should be such as to preserve the maximum degree of flexibility and freedom for future policy.⁵ But continuity of policy and

⁴ The present floating debt of some £m6,000 may be divided into three roughly equal parts; one third is held by Government Departments or their equivalent and is in the nature of a book entry; one third represents overseas sterling balances; the remaining third is held almost entirely by financial institutions. Publication of estimates of these separate elements appears to be practicable and might go far to allay any public apprehensions concerning the volume of this class of debt.

⁵ For the present also effects upon the Savings Campaign should be considered.

gradualness of changes should be aimed at unless in exceptional circumstances and for grave cause.

26. Accordingly in the next section of this note we set out suggestions for a programme of procedure. It is primarily a programme of initial procedure only but is designed to set a standard suitable to be generally followed. In doing so we make these observations.

27. Firstly, a general assumption underlying many recent discussions of financial policy is that this country can be largely insulated from the effects of financial conditions overseas by a control of external capital movements, assumed to be made permanent and assumed to prove adequately effective in the absence of political censorship. For example, conditions of serious distrust in this country, if they ever arose, might lead to a break in the control. The Committee take the view however that, among the circumstances which might lead to such a failure of the control, a level of interest rates lower here than elsewhere would be relatively of small, – perhaps almost insignificance – importance as an inducement to law-breakers or law-evaders[.] It is rather the case that the failure of the control would endanger much more than the recommendations in this report than the recommendations in this report endanger the control.

28. Secondly, as in the White Paper on Employment (paragraph 80), we plead that there is many a slip 'twixt the cup and the lip. In the whole of this matter we enter a field "where theory can be applied to practical issues with confidence and certainty only as experience accumulates and experiment extends over untried ground. Not long ago the ideas embodied in the present proposals were unfamiliar to the general public and the subject of controversy among economists".

29. Thirdly, contrary to the course pursued in the White Paper we do not advocate that there should be any preliminary and detailed announcement of a new settled policy. It happens that the measures about to be recommended represent no more than a continuance and development of existing policies and we think it better that, in the main at any rate, the public should learn by practical experience rather than by exposition.

III

30. We suggest the following programme of initial procedure – the date of its introduction is discussed below.

(a) Treasury Bill rate to be brought down to $\frac{1}{2}\%$ and Treasury Deposit Receipts to carry $5/8\%$; probably a special rate of 1% (broadly the present rate) to apply to overseas money now in Treasury Bills and the like.

(b) Subject to action on (a), 5 year Exchequer Bonds at $1\frac{1}{2}\%$ and 10 year Bonds at 2% to be issued on tap, a new series to be started annually.

(c) 3% Savings Bonds to be issued on tap, a new series to be issued annually, with an option to the Treasury to repay after 10 years with, preferably, no final maturity (or if necessary a fixed latest date of repayment after 35 years).

(b) follows upon (a); (c) could either follow (a) or precede it.

31. No change would be made in the present terms affecting Tax Reserve Certificates, Savings Bank Deposits and Savings Certificates, but after an interval a worsening of the yield on Defence Bonds should be considered.

32. As regards (a) $\frac{1}{2}\%$ was roughly the Treasury Bill rate for several years before the war. It is not thought however that the rate for overseas balances could be brought down below 1% at any rate until the whole complex of questions surrounding them has been settled.

33. As regards (b) there is no social reason requiring a relatively liberal rate of interest on five or ten year bonds, nor any ground for offering those investors who have funds to put away for long periods an easy alternative of investing short with little sacrifice of interest. The gap therefore between the short bonds and the long term issue should be fairly wide.

34. The proposal (c) differs from the existing 3% issue in that the final date of maturity is more distant (or there is no final date) while the date of optimal redemption, (so far from moving further into the future *pari passu* with the final date, as has been the course followed during the war) – is moved backward to 10 years. The conditions of the suggested offer are therefore more favourable to the Exchequer than at present. The general grounds for making no more advanced proposal are –

(i) that it would be premature to try to move to a lower rate at a time when the opportunities for investment are exceptionally abundant and before the conditions normal to the post-war epoch have been established;

(ii) that the return to the investor and the cost to the Exchequer of a 3 per cent Bond is modest so long as direct taxation remains at or near its present level;

(iii) that at the same time the option of early redemption safeguards a future liberty of action.

35. It has been indicated above (paragraph 14) that there are grounds for caution in deciding when to take steps towards lower levels. One of the factors to be considered is the effect of action in regard to Treasury Bill rates upon the negotiations with the Dominions and India. Consequently we do not suggest that any action should be taken on (a) before the autumn, when the matter should be reviewed again before a final decision is taken, and (b) therefore also remains in suspense. On the other hand we see no reason why (c), which is free from the overseas complication and represents only a modest deviation from the present issue, should not be adopted at any convenient time in the course of this year.

36. The necessity soon to withdraw the present $1\frac{3}{4}\%$ offer leaves a gap to be filled (or perhaps left for a time unfilled) before action on the lines of (b) could be taken; the nature of any new offer in this interval is left for discussion with the Bank of England.

IV

37. In this section we add some reflections on developments which may come as time goes on in regard to issues that may be on offer.

38. If, at any time, the terms offered result in an increasing preference on the part of the public for the shorter-dated securities, the resultant saving in the interest cost may up to a point be welcomed, and, unless the ruling conditions at the time (as they quite likely may) indicate a different conclusion, opportunity may be taken for a further economy in interest cost by a lowering of short-term rates.

39. If, on the other hand, the terms offered result in an increasing preference for the longer-term securities, consideration should be given whether the social and other advantages of the existing terms as affecting the habit of thrift outweigh the cost to the Exchequer; and, if not, the rate of interest on them should be reduced if it appears that these market conditions are likely to continue. If the prevailing long-term tap rate, say 3 per cent, becomes chronically too high, in the sense that it attracts to the Exchequer an excessive volume of funds in that form and the supply of new investments expected to yield a corresponding return is running short, on the reduction of the rate other means could be sought, if necessary, to provide the social incentives and advantages which a lower rate might be inadequate to afford.

40. Illustrations of such other possible means are: –

(a) the further development of the existing facilities already available up to a limited amount for an individual holder, such as the Post Office and Trustee Savings Bank deposits, Savings Certificates and Defence Bonds;

(b) the acceptance by the Treasury of deposits from Charities and the like (perhaps including Life Offices) at a preferential rate;

(c) possibly also the offer of annuities on joint lives, calculated on the basis of a low rate of interest, but favourable to the holder in other respects, especially the principle on which the annuity is taxed.

41. If the prevailing long-term tap rate becomes chronically too low, in the sense that it encourages new capital formation on a scale tending to inflation, the rate should, in general, be raised. We are also disposed to take the view, though this is a matter in which the Bank of England may be specially interested to advise, that tap issues of short and intermediate-term debt should be, in general, on terms of repayment at a fixed date; and that (under the general system proposed), where optional dates of redemption exist in the case of past issues, advantage should be taken of the option to repay if, otherwise, the bonds would be standing at a premium (thus indicating that the rate of interest they carry has become too high to be appropriate to the term of maturity they have now reached), unless there appear to be special reasons at the time to the contrary.

Chapter 3

From Critique to ‘Keynesianism’

Set first in the context of the reviews of the *GTOEIM*, this chapter traces the theoretical evolution of ‘Keynesian’ economics. In 1910, Hawtrey is found advocating a model where output adjusts in the short period. The *IS-LM* diagram is then seen to originate in three contributions by Robertson. Hicks enters only after publication of the *GTOEIM*, pursuing a critique based on Robertson’s model and then developing the familiar algebraic and diagrammatic version of *IS-LM*. The economics profession across the world embraced this model instantly. Finally, Modigliani synthesised Hicks’s model with classical economics to remove any importance of liquidity preference and the rate of interest. In this way ‘Keynesian’ economics could regard monetary policy as unimportant, and be utilised to support a pre-disposition to state spending. It is left to Chapter 5 to trace the practical policy arguments of ‘Keynesian’ economics and their political allies.

3.1 The dismissal of the *General Theory*

Under the overall editorship of Andrew Pyle, the excellent *Contemporary Responses* series reproduces the published responses to major academic works as they were released. Part 21 of this series provides the *Contemporary Responses to the General Theory*. Editor R. E. Backhouse divides the reviews according to

‘newspapers’, ‘general, literary and professional’ and ‘specialist academic journals’. In his introductory section, Backhouse sums up the stance of the academic reviewers:

Whilst all bar one reviewer (Beckhart, [1936] *Political Science Quarterly*, [51(4), Dec.,] p. 602, who thought the book likely to remain ‘but an interesting exhibit in the museum of depression curiosities’) considered it an important book, it was subjected to strong criticism. Enthusiasm was generally muted, Harris (1948, p. 29) going so far as to say that not a single enthusiastic review had come to his attention. (Backhouse, 1999, p. 12)

This state of affairs was not new to Keynes. His theoretical developments had been opposed by prominent members of the academic economics profession from the moment that he had begun to make contributions to the discipline. The most prominent and distinguished early critic was Edwin Cannan of the London School of Economics. Cannan opposed Keynes’s early policy conclusions simply by denying the fact that banks created money. The most public of these disputes was over Keynes’s rejection of the gold standard in his *Tract on Monetary Reform*. With Cannan’s death, the main critics of his *Treatise on Money* were those who would oppose Keynes for the rest of his life: R. D. Hawtrey and D. H. Robertson. Also prominent among the critics of the *Treatise* was F. A. von Hayek; Hayek was, however, silent on the later matter of the *General Theory*.

The nature of the outright opposition to the *GTOEIM* must be emphasised, but need not be dwelled on. It is well illustrated by Keynes’s comments in response to reviews and commentaries by the ‘senior’ British economists, Hawtrey, H. D. Henderson, W. Beveridge and A. C. Pigou:

I find your letter of April 3rd rather shattering. For, after reading it, I am now convinced that nothing that I can say will open your eyes – I do not say to the truth of my argument – but to what the essence of my argument, true or false, actually is.

... I have been conscious that you have never made any reference to about 75 per cent of my book, and I have been bothered by this, because whilst, on the one hand, silence in such a long correspondence would seem to give consent to it, yet your observations on other passages lead me to doubt whether you will be in agreement. (Keynes to Hawtrey, 15 April 1936, CW XIV, pp. 23-4)

Hubert [Henderson] came to the Marshall Society yesterday, with Dennis in the chair, to read his paper against my book. I was astonished at the violence of his emotion against it: he thinks it a poisonous book; yet when it came to the debate there was very little of the argument which he was really prepared to oppose. ... One got the impression that he was not really much interested in pure economic theory, but much disliked for emotional or political reasons some of the practical conclusions to which my arguments seemed to point. As a theoretical attack there was almost nothing to answer. (Keynes, in a letter to Lydia Keynes, 3 May 1936, CW XXIX, p. 218)

... the general nature of your points is such as to convince me that I have really had a total failure in my attempt to convey to you what I am driving at. (Keynes to Beveridge, 28 July 1936, CW XIV, p. 56)

I was distressed by the Prof's [Pigou's] review and even more so that you should think it worthy of him. I have felt it something about which the less said the better.

... But indeed I thought the Prof's review profoundly frivolous in substance. Surely I deserve to be taken a little more seriously than that. (Keynes in a letter to Robertson, 20 September 1936, CW XIV, p. 87)

At the time, Pigou was the President of the Royal Economics Society; Kahn refers to his review in *Economica* as "bitter and sarcastic" (Kahn, 1984, p. 125).

The charges evident in Keynes's comments are that the reviews and commentaries failed to understand or communicate what his theory was trying to say, trivialised the matters at hand and at the same time were of slight theoretical substance. Equally importantly, as Backhouse notes (although Keynes did not), virtually all of the academic reviews ignored Keynes's broader policy and social conclusions: "Where the 'popular' reviews focused on Keynes's chapter on the social philosophy implied by the general theory, this received far less attention in the specialist reviews" (Backhouse, 1999, pp. 12-13). Those academic reviews that did discuss policy tended to focus on whether wage cuts would increase unemployment – a side issue of only slight importance to the broader argument. Two exceptions were R. F. Harrod and A. Lerner (the latter sadly not included in

Backhouse's collection). Harrod, while misleading on certain matters, came closest of all the academic reviewers to articulating Keynes's policy conclusions:

The present volume is concerned with the main structure of theory and not with the details of its application. This much may be said now, however, that the remedies would certainly be concerned with the operation of the banking and financial system, the volume of investment and public finance. They would entail collaboration between the government and the institutions concerned with these economic processes. How much government control or 'socialization' would be necessitated, would depend on the degree to which loyal co-operation could be secured.

... One point may be mentioned, however, which does bear upon the fundamental conflict [between rich and poor]. If his views are correct, our system ought so to be managed that the rate of interest falls to a very low level. This suggests that the present position of the rentier class might be gradually and peacefully liquidated – great profits might still be made but they could no longer form the basis for the maintenance of permanent economic predominance. (R. F. Harrod, in Backhouse, 1999, pp. 188-9)

Towards the end of his review, Lerner discussed (perhaps in a rather lukewarm manner) the change in attitude to interest rate policy fostered by the *GTOEIM*:

Keynes' conclusion that the amount of employment has to be governed by operating on the amount of consumption and investment, *via* the rate of interest or otherwise, may seem at first sight to be a very small mouse to emerge from the labour of mountains. Everybody has known that cheaper money is good for business, and so is any increase in net investment or expenditure. But for occasional lapses from scientific purity to momentary commonsense, the pundits of economic science have been declaring that people should practice more thrift. (Lerner, 1936, p. 269)

In terms of the present work, the most important reviews were those from the neo-classical economists. Fittingly, in public, these began with Hicks's review in the *EJ*. In general terms, the approach was to play down the achievement and impact of the work. The contributions addressed detailed matters of theoretical substance, but argued that differences with the neo-classical version were slight, and – in varying degrees – stressed the possibility of reconciliation. Neo-classical economics was portrayed as a logical extension of classical economics that could be applied to the questions that Keynes was concerned with. As proposed in Chapter 1, any reconciliation simply involved a wholesale replacement of Keynes's theory with the neo-classical version. While the public face of this

reconciliation may have been Hicks and the 'Keynesians', Robertson was far more important to the development of the approach.

3.2 Robertson and the Keynesians

Robertson was first Keynes's pupil and shortly afterwards, for a brief period, a collaborator. But from the publication of the *Treatise* onwards he was at the centre of opposition to each of Keynes's theoretical initiatives and most of his practical initiatives. While he portrayed this opposition as reluctant, as his private comments to Keynes on the *Treatise* illustrate, it was always fundamental:

I now send you, somewhat reluctantly, this document. Reluctantly (a) because your very kind note about my collected works is still fresh in my mind, (b) because even if I can't follow you in practical judgement over the tariff, I should like to have been able to subscribe to the fundamental analysis of your *Treatise*[.] But the more I've studied it, the more obstacles I find in the way of doing so. (2 May 1931, CW XIII, p. 211)

Robertson was not entirely disengaged from the production of the *GTOEIM*, but his approach to the galley proofs was so negative and unhelpful that Keynes terminated the dialogue. Keynes's comments on doing so were highly perceptive in the light of what was to come:

This brings me to the main impression with which your criticisms leave me. I feel that you must, as said above, either differ from me much more or less. You make no frontal attack on any of my main points. Yet there is not really a single point of importance where I have succeeded in making you change your mind. I am baffled by your practice of reading into everything I write something not very incompatible with what you already believe. (CW XIII, p. 520)

Robertson's subsequent anxieties about how to respond to the actual publication of *GTOEIM* are well illustrated by Skidelsky:

Robertson was himself brooding about how to respond to the *General Theory*. On 19 February 1936, he informed Henderson that he had 'cravenly' refused to review it for the *Economist* (Austin Robinson did it instead), but might write 'one or two articles later on the points of substance, eschewing the need to assess the thing as a whole'. He

concluded his letter by saying that 'the whole thing is of course a devastating nuisance, personally and pedagogically, especially in Cambridge: and the difficulty is not to let that affect one's intellectual judgement'.

Robertson's draft article was criticised by both Sraffa and Henderson. As a result he had decided to rewrite it from the start. 'It's a disaster', he told Henderson, 'that the case for relative sanity here should be in such stale & incompetent hands.' (Skidelsky, 1992, p. 589)

According to the material available in *Collected Writings*, Robertson took until September 1936 to respond privately to Keynes: "I've spent a lot of time this summer on the said book. It's no use pretending I like it much better, or that I don't agree more or less with the Prof.'s [Pigou] review..." (Robertson to Keynes, 28 September 1936, CW XXIX, p. 163). While this comment indicates a fundamental opposition, his long-time-coming public comments adopted a less controversial and confrontational tone. The outlet for these comments was not Britain, but the November 1936 edition of the US *Quarterly Journal of Economics* (*QJE*), where his was one of four reviews of the *General Theory*. Reflecting his apparently unchanged inability to tackle the work as a whole, the review was titled 'Some Notes on Mr. Keynes' General Theory of Employment'. His opening statements emphasised his less aggressive stance:

I am grateful for the opportunity to publish these notes in a setting which will make it plain that they are not an attempt to appraise Mr. Keynes' book as a whole, or to discuss properly the high matters of judgement and policy on which it bears – matters on some tho not all of which I am, I think, more nearly in agreement with Mr. Keynes than the reader of these notes might suppose! (Robertson, 1936, reproduced in Backhouse, 1999, p. 206)

Keynes responded to Robertson in both private correspondence and in print. His private response illustrates his recognition and rejection of the position Robertson was taking:

I see that you are saying that it all makes no difference, that Marshall related it all to a Royal Commission in an affirmative sigh, that it has been well known to Pigou for years past and is to be found in a footnote to *Industrial Fluctuations*, that Neisser's bunk comes to the same thing, and the like; ... You are like a man searching for a formula by which he can

agree without changing his mind. (Keynes to Robertson, 13 December 1936, CW XIV, p. 94)

Robertson's review also singled out the two specific components of Keynes's theory that would dominate technical debate until the war, and that to some extent have continued to do so until today. As at the general level, the components were treated in the spirit of the phoney reconciliation. His critique of the savings-investment relationship maintained that the identity claimed was a matter of definition and that other definitions could be adopted that were equally relevant. Similarly, Robertson did not claim that he rejected the theory of liquidity preference, but argued that it was simply a 'version' of the classical 'loanable funds theory'.

While most of Keynes's senior colleagues made their public comments on the *General Theory* then withdrew from controversy, Robertson's opposition to the *General Theory* in public and in private never ceased. Eventually, Keynes and Robertson's relationship broke down.¹ In 1938 Robertson moved to LSE. Two years later he published a vicious and unrepentant assault on the *General Theory*. This assault, 'Mr. Keynes and the Rate of Interest', was the only new work in a book of re-printed articles *Essays in Monetary Theory* (although it was mainly drawn from his *QJE* review and other arguments he had put to Keynes in the years since publication). In the 'Preface' he sought to explain his actions:

In the badinage of correspondence, Mr. Keynes has accused me of being a bad snake, unapt at sloughing its old skins; while I have presumptuously claimed in reply to be a good glow-worm, shedding its feeble light fairly consistently and impartially on all the phenomena in its neighbourhood, by contrast with the powerful searchlight which launches a penetrating but distorting beam on a number of different objects in succession, obscuring the rest in temporary darkness. And there we must leave it. (Robertson, 1940, p. ix)

If Keynes responded, it has not been recorded. Similarly no correspondence or report of contact exists until official work brought them together at the end of W.W.II.

The Keynesians' initial approach to the *General Theory* mimicked Robertson's. The conclusion of Hicks's *EJ* review played down the nature of the *GTOEIM*: "The technique of this work, is on the whole, conservative: more conservative than in the *Treatise*. It is the technique of Marshall, but it is applied to problems never tackled by Marshall and his contemporaries" (Hicks, 1936, p. 253). By his 1937 *Econometrica* paper, the playing down was more forthright: "The *General Theory of Employment* is a useful book; but it is neither the beginning nor the end of Dynamic Economics" (Hicks, 1937, p. 159). On the specific critique of the theory of liquidity preference, Hicks echoed Robertson: "It is a perfectly legitimate method, but it does not prove other methods to be wrong. The choice between them is purely a question of convenience" (Hicks, 1936, p. 246). letr

While Harrod's first review was helpful, a second contribution in 1937 was less so. This paper, published in *Econometrica*, is widely regarded as his contribution to the Keynesian theory; the argument was on Robertsonian lines:

The stress which he lays on expectations is sound, and constitutes a great improvement in the definition of marginal productivity. This improvement, however, might be incorporated in traditional theory without entailing important modifications in its other parts. (Harrod, 1937 p. 77)

It appears to me that the achievement of Mr. Keynes has been to consider certain features of traditional theory which were unsatisfactory, because the problems involved tended to be slurred over, and to reconstruct that theory in a way which resolves the problems. (*ibid.*, p. 84)

In my judgement Mr. Keynes has not affected a revolution in fundamental economic theory but a re-adjustment and a shift of emphasis. (*ibid.*, p. 85)

In the United States, Hansen closed his review by depicting the *GTOEIM* as merely providing some preliminary but helpful suggestions:

We are living in a time when economics stands in danger of sterile orthodoxy. The book under review is not a landmark in the sense that it lays a foundation for a 'new economics'. It warns once again, in a provocative manner, of the danger of reasoning based on assumptions which no longer fit the facts of economic life. Out of the discussion and

¹ So too did Robertson's mental health according to Moggridge (e.g. 1992, p. 601).

research will come bit by bit an improved theoretical apparatus (Keynes's interest rate theory contains promising suggestions) and a more accurate appreciation of social psychology (the brilliant chapter on long-term expectation) and of the precise character of the economic environment in which humans act as individuals and in groups. The book is more a symptom of economic trends than a foundation stone on which a new science can be built (Hansen in the *Journal of Political Economy*, Oct. 1936, reproduced in Backhouse, 1999, pp. 176-7)

While Robertson's role in the development of 'Keynesian' theory remains unrecognised, at the time the closeness of their respective positions was both public and portrayed as a virtue. In his private correspondence with Keynes, Robertson used Harrod's and Hicks's positions as support for his own:

Both over the *Treatise* and this book I have gone through real intellectual torment trying to make up my mind whether, as you often seem to claim, there is some new piece on the board or rather a re-arrangement, which seems to you superior, of existing pieces. It has been an intellectual relief to me to find Hicks (e.g. review pp. 246-8) and Harrod (*Econometrica* paper) both taking the latter view, though agreeing far more with you than me about the merits of the re-arrangement. (Robertson to Keynes, 29 December 1936, CW XIV, p. 95)

More publicly, Robertson acknowledged Hicks's contributions to his *QJE* review and the first chapter of his *Essays on Monetary Theory*:

After numerous discussion of this book and these notes I am in the usual difficulty – how to acknowledge indebtedness without compromising the acknowledgee. Especially from Professor Pigou, Mr. Henderson, Dr. Bode, Mr. Hicks and above all from Mr. Sraffa, ... (Backhouse, 1999, p. 206)

In this long and intricately worked terrain, the problem of acknowledgement has become a nightmare. I have tried to solve part of it *ambulando* in the text, but much remains. Among the many published appraisals of Mr. Keynes' latest work, I have, I think, derived most benefit from those by Mr. Hawtrey and Mr. Hicks; among many conversations on the same theme, those with Mr. Sraffa stand out in memory as most inevitably ending in theft. (Robertson, 1940, viii)

In turn, the (cosy) *Economica* review of *Essays on Monetary Theory* saw Hicks return the compliment:

The reviewer of Professor Robertson's *Essays*, especially when (as is the present case) he comes to his task a year after its publication, is confronted with something different from the usual task of reviewing. Either in their collected form, or as originally published, these essays will already be familiar to most persons who are likely to read a review in *ECONOMICA*. They have already won an assured place in economic literature, which in this instance is English literature too; for may we not say that Robertson at his best is unmatched this side of Adam Smith for the combination of profound wisdom with literary charm? The present volume contains a larger proportion of these best things than any of its predecessors; their clarity and humanity would be superfluous to praise. My own favourite is that Harvard address, characteristically entitled "The Snake and the Worm". I do not know how often I have read it; I shall go on reading it until I know it by heart. (Hicks, 1942, p. 53)

In the course of the review, Hicks explicitly endorses Robertson's approach to the savings-investment relationship and to the theory of liquidity preference:

... since the time of the *General Theory* the need for definitions [of saving and investment] of the Robertsonian sort has been increasingly felt. ...

The search for the ideal definitions of Saving and Investment has now been narrowed down, and narrowed down to something in the near neighbourhood of Professor Robertson's original definitions. (*ibid.*, p. 54-5)

He has no difficulty in showing that the theory of Liquidity Preference is a very rough and ready description of the way the forces governing interest work; ... (*ibid.*, pp. 55-6)

It cannot be sufficiently emphasised that this was written in 1942, several years after his famous and now widely accepted interpretation of the *General Theory* to which the discussion must now turn.²

² Hicks later looked back at this review: "The first thing which has to be said is that by that time I was feeling myself to be much closer to Robertson than to any other economist who was my senior. Most of the papers which have gone before in this collection had been criticised by him, before or after their publication; I owed him quite a debt. I felt myself to be temperamentally much closer to him than I was to the Keynesians [meaning presumably Kahn and the Robinsons], from whom he had separated himself so sharply after 1936, or a bit earlier. But my position was on the Keynes side of his. I regretted the feud, for such indeed it had become. I really wrote the review for him, to persuade him to turn away from the polemics which I felt had become sterile, and to turn to more constructive work, on the basis of what I felt he had already achieved" Hicks (1965, p. 127). The new essay did not retract the position on the more detailed technical issues.

3.3 The Keynesian simultaneous equation model

3.3.1 Before the *GTOEIM*

The Keynesian simultaneous equation model was underpinned by a perspective on the economy shared by Hawtrey and Robertson. Initially, this perspective saw credit creation as the dominant of economic activity (at least in the 'short run'). As noted, Hawtrey's 1910 *Currency and Credit* set out the leading neo-classical model:

If industry is employed up to capacity, the credit expansion is felt mainly in a rise of prices. On the other hand, if there is a considerable margin of productive power unemployed, the main effect will be to increase production. If all producers were employed below capacity to the same proportional extent, there might be for a time no rise in prices at all. ... Nevertheless it is the case that, at a time when industry is under-employed, the rise of prices caused by an expansion of credit is less. The rise of prices and the increase of production are, to a great extent, *alternatives*. (Hawtrey, 1919, pp. 49-50)

While attributing a specific role to credit, Hawtrey's position was not new to the mainstream economics profession. The standard notion of an underlying or long-run equilibrium has tended to co-exist with an acceptance of a short-run output fluctuation since at least Hume's 'Of Money' in 1752:

In my opinion, it is only in this interval or intermediate situation, between the acquisition of money and the rise in prices, that the increasing quantity of gold and silver is favourable to industry ... The farmer and gardener, finding that their commodities are taken off, apply themselves with alacrity to the raising of more ... It is easy to trace the money in its progress through the whole commonwealth; where we shall find that it must first quicken the diligence of every individual, before it increases the price of labour. (Hume, 1955)

The existence of either of these models makes a nonsense of the almost universal notion that the revolutionary contribution of the *GTOEIM* was 'output adjustment' (e.g. "that crucial shift from price to quantity adjustments, which laid the basis of the *General Theory*", Pasinetti, 1990, p. 4).

As will be discussed in Chapters 7 and 8, the notion of output adjustment is not entirely inaccurate, but serves vastly to diminish the nature of the theoretical contribution of Keynes's *General Theory*. Even the short quotation above indicates how Hawtrey's 1910 position is consistent with that which has been commonly depicted or understood as Keynes's revolutionary contribution.³

Robertson also made contributions to this type of theory in the 1910s and 1920s. Then, in two *EJ* articles published between the *Treatise* and the *GTOEIM*, he turned the attention of neo-classical theory to the rate of interest. The opening of the first of these, 'Saving and Hoarding', articulated his aim: "In a future article I hope to examine certain aspects of the relation between saving, the rate of interest, and the course of industrial fluctuation" (Robertson, 1933, p. 399). The imperative for this re-statement of the position appears to have been Keynes's own developments of the saving-investment relationship and of the theory of the rate of interest. The immediate consequence was that one of two rejoinders (rejecting the position Robertson was taking) was by Keynes himself (in the December 1933 *EJ*, CW XIII, p. 327-30)

Robertson's second contribution was his December 1934 *EJ* article: 'Industrial Fluctuation and the Natural Rate of Interest'. The work was introduced as follows:

The following paragraphs are an attempt to bring together (1) the concept of Saving developed in my article in the *Economic Journal*, Sept. 1933, and (2) the attempts which have been made to analyse cyclical fluctuation in terms of a divergence between the 'natural' and 'market' rates of interest. (reproduced in Robertson, 1940, p. 83)

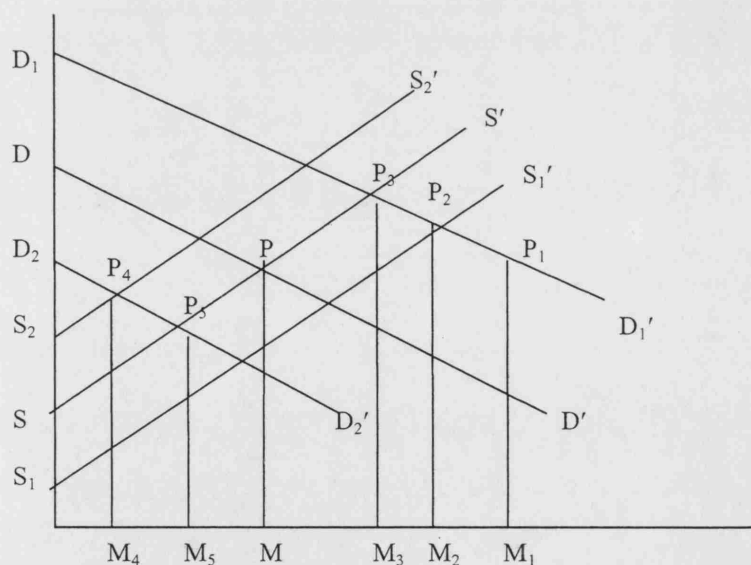
The article depicted economic activity as an interaction between real phenomena and the lending behaviour of banks, i.e. as a credit cycle. The diagrammatic centrepiece is reproduced as Figure 3.1; it was described by Robertson as follows:

³ This situation has not gone entirely unnoticed; R. J. Bigg has observed that Hawtrey's disequilibrium analysis is "... remarkably close to the modern textbook presentation of the Keynesian equilibrium adjustment process" (Bigg, 1987, p. 607).

... we have a curve DD' representing the declining marginal productivity of new lendings in industrial uses, ... And we have a curve SS' representing the rate of new available savings per atom of time – ... in equilibrium the rate of interest PM is the rate at which the new lendings which can be absorbed by industry ... and the new available savings ... are equal. ...

Now, owing to the discovery of the Diesel engine, South America, or what not, an industrial expansion sets in, and DD' is raised D_1D_1' . If the banks keep the rate of interest right down at $PM (=P_1M_1)$, the initial rate of *lendings* per atom of time will exceed the rate of available new *savings*, and the whole of the excess MM_1 ... will consist of newly created bank-money There is now a *quasi-natural* rate of interest P_2M_2 which would equate industrial requirements and available new savings under the new conditions, towards which the actual rate is likely to rise, ... (Robertson, 1940, pp. 85-6)

Figure 3.1: Robertson's diagram (1)



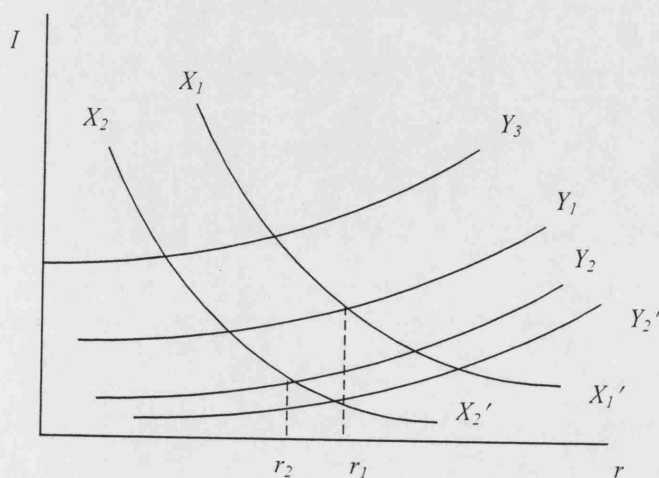
In essence, the model developed a distinction between the rate of interest defined by the 'old' savings-investment equilibrium and a rate of interest that was related in some way to the credit policy of the banking system. At the same time, the paper 'generalised' the classical savings-investment equilibrium diagram by

giving it the extra dimension of output. *This is the first depiction of the diagram that has become synonymous with Keynesian economics.*

The next trace of the 'Keynesian' model was in the *GTOEIM* itself, as the diagram on page 180 (Figure 3.2 below). Keynes commented: "[t]his diagram was suggested to me by Mr R. F. Harrod. Cf. also a partly similar schematisation by Mr D. H. Robertson, *Economic Journal*, December 1934, p. 652" (CW VII, p.180). Harrod made this suggestion in the course of his dialogue with Keynes over the galley proofs of the *GTOEIM* (CW XIII, pp. 526-565). Harrod argued that Keynes's rejection of the classical theory of interest would be better portrayed through an alleged indeterminacy of the classical perspective. He offered the following clarification of what he had in mind:

Let y_1, y_2 etc. be rates of interest and Y_1, Y_2 etc. incomes corresponding to them (Y_1 being derived from y_1 via marginal efficiency of cap. and the multiplier). For each value of Y draw classical supply curves, of which *each* curve shows amount of saving corresponding to various values of y at a given level of Y . Then according to you it will be found that the value of y at which the curve appropriate to income Y_r intersects the demand curve is in fact y_r , where y_r represents any give rate of interest whatever. The so-called supply curve in the passage from your letter which I have quoted is the locus of points on the classical supply curves for that value of y corresponding to the level of income on the assumption of which each was drawn. (CW XIII, pp. 556-7)

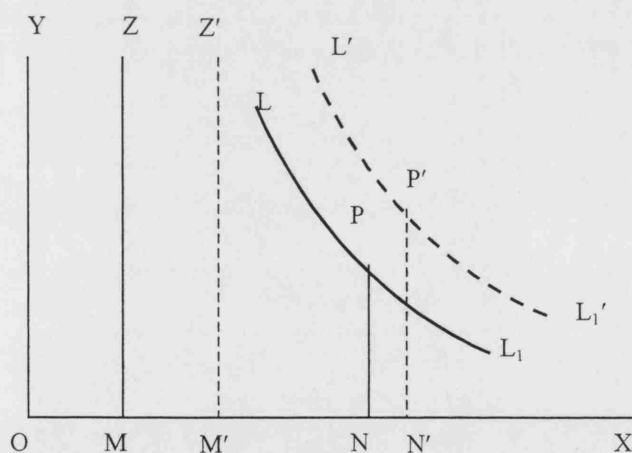
Figure 3.2: Keynes's diagram



Keynes did not appear to be aware of the similarity with Robertson's diagram during the actual exchange with Harrod. As will be discussed in Chapter 6, the insertion of this diagram – which was not part of the wider scheme of the *General Theory* – was a vital step for the identification of the Keynesian model with the *General Theory* itself.

The diagram would, of course, be 'solved' by the so-called 'IS schedule'. Robertson looked to the 'LM' dimension of the emerging Keynesian model in his *QJE* review of *GTOEIM*. He argued that "... we may illustrate Mr. Keynes' propositions diagrammatically as follows" (Robertson, 1936, p. 181). The diagram is reproduced here as Figure 3.3, followed by Robertson's description.

Figure 3.3: Robertson's diagram (2)



At a given level of money income people will wish to hold an amount of money OM for "transaction, etc." purposes, and, if the rate of interest is PN , a further amount MN for "speculative" purposes. At a certain higher level of money income they will wish to hold OM' for "transaction, etc." purposes, and, if the rate of interest is PN' , a further amount MN' for "speculative" purposes. LL_1 is the locus of P , LL_1' of P' . (In the simple case illustrated, LL_1' is simply LL_1 shifted to the right by a distance MM' , i.e. the conditions of what I will call "liquidity preference proper" are assumed unchanged.) (Robertson, 1936, pp. 181-2)

3.3.2 The loanable funds variant

As well as underpinning the derivation of the LM schedule, the article/review was the foundation for the perspective on interest known as 'loanable funds'. The debates have since been interpreted as distinct, but in reality were just different aspects of the development of the neo-classical rival to Keynes's theory. As Chick has shown, loanable-funds theory 'develops' classical theory so that it incorporates credit:

At least the neoclassical theory brought money into the picture. However, the theory was so designed that the conclusions or implications of Classical theory still held.

In particular, saving was still *prior* to investment. Investment could however be financed out of dishoarding or from new money as well as from 'saving proper' – i.e. saving in the Classical sense. Sources and uses of funds are fundamental to this theory, hence its designation as Loanable-Funds Theory. Sources and uses may be indicated by an equation:

$$I + H = S + \Delta M$$

where the new symbol, H , is net hoarding (i.e. the accumulation of cash balances by surplus units less dishoarding by others).

It is probably best to view loanable-funds theory as an attempt to preserve a Classical outlook on interest, saving and investment while adapting the theory to a monetary economy. (Chick, 1983, pp. 178-9)

Soon economists across the world were advocating this theory of interest. The detailed discussion of the two theories is left to Part II, but the background is briefly examined here. Keynes's response is covered in section (4.2) – in the context of his response to the Keynesian model as a whole.

In line with the later claimed equivalence of Keynesianism and the *General Theory*, the argument from the start was that loanable funds was an alternative theory of the rate of interest that was compatible with liquidity preference. Keynes's original response to Robertson's *QJE* article picked up the ill-defined nature of the theory that his own work was being set against:

When you say that 'it is not as a refutation of a common-sense account of events in terms of supply and demand for loanable funds, but as an

alternative version of it' that my account is to be regarded, what 'common-sense account' have you in mind? Where is it to be found? Can you give me the references? (Keynes to Robertson, 13 December 1936, CW XIV, p. 92)

Robertson's eventual response to these questions was in the *EJ*. Keynes arranged a debate between himself and the advocates of loanable funds under the title, 'Alternative Theories of the Rate of Interest' (henceforth, 'alternative theories'). These articles were perhaps the most substantial debate provoked by the *GTOEIM*. Robertson's first contribution explained the evolution of loanable funds:

Mr. Keynes complains that, in comparing his theory of interest with "a common sense account of events in terms of supply and demand for loanable funds," I have given no indication of where an example of the latter is to be found. In point of fact, I am afraid I was referring primarily to the account which I had just attempted to give myself [his *QJE* review] ... No doubt I had also in mind the more elaborate analysis of Dr. Haberler, which was not, I admit, generally accessible [footnotes: Now published in *Prosperity and Depression* pp. 191 ff.]. But these accounts are both, I think, merely attempts to give a rather pedantic precision to the ordinary view enshrined in the well-known studies of the capital and credit markets as those of Lavington and Hawtrey, ... (Robertson, 1937, p. 428)

Robertson thus claimed that loanable funds theory was first set out in his own review and second in an as yet unpublished work by Haberler (see below). For the purposes of the *EJ* debate, the loanable funds argument was presented in two articles by B. Ohlin entitled 'Some Notes on the Stockholm Theory of Savings and Investment' (March and June 1937). On receipt of the second instalment of Ohlin's article, Keynes wrote:

I am very glad that you have been able to put down in a way I can understand the theory of the rate of interest as established by the demand and supply for credit. This is an idea which is widely held outside Sweden, e.g. to some extent by Dennis Robertson and Hicks. For my part, I am not convinced by it and consider it *fundamental heresy*. ... So far from its being an alternative version of my theory, my first impression is that this and mine are wholly irreconcilable. (3 February 1937, CW XIV, pp. 185-6, my emphasis)

Harrod has asked me to send his paper on to you, and I take the opportunity of returning your own paper at the same time. I am sorry not to have returned your paper before, but I was waiting till I saw Harrod's before I decided what to write myself, and I didn't know how much of yours I should want until then. Now I have got a good deal of my paper done, and can manage without that from now on. I am taking up a number of Harrod's points, but making my paper on the whole rather critical of Keynes. I have got some maths in my paper, and have been careful to use your symbols, so as not to cause unnecessary confusion.

As I am just going away for a holiday, I am afraid I shan't get my paper done until about 2 days before the meeting; consequently I shall be obliged to produce it out of a hat and not circulate it first. I am sorry for this, but it is not altogether my fault.

Yours, John R. Hicks

(Young, 1987, p. 33)

While all three models were similar, it was Hicks's *IS-LM* diagram that captured the profession so completely. Furthermore he was already the most prominent of the 'Keynesians', and his most recent work had a distinct Keynes flavour (although, prior to this, his 1932 *Theory of Wages* set him against the theoretical and practical initiatives of the monetary theorists just as the great depression deepened). His 1935 paper, 'A Suggestion for Simplifying the Theory of Money', set out a theory of interest based on demands derived from the balance sheet. It therefore anticipated the not-yet-published theory of liquidity preference. In his much later 1977 *Economic Perspectives*, Hicks records Keynes's comments on this work (not included in *Collected Writings*): "When I sent that (in proof) to Keynes, I got this postcard, dated Dec. 24, 1934: 'Many thanks for the proof of your article. I like it very much. I agree with you that what I now call 'Liquidity Preference' is the essential concept for Monetary Theory'" (Hicks, 1977, p. 142). Hicks speculates that the article was the main reason for his being offered the opportunity to review the *General Theory*: "It was no doubt because of 'Simplifying' that I had this difficult honour conferred upon me" (*ibid.*).

Hicks's equations and famous *IS-LM* diagram (Figure 3.4 below; at this stage, it was known as *SILL*) represent respectively Robertson's two diagrams and then a picture of their possible resolution.

Ohlin suggested that a more detailed discussion of the saving-investment mechanism should be provided, including recent contributions by Robertson (1934). According to Ohlin, this could show how a higher level of expenditure in public works brings about “unintentional savings” able to finance the public deficit (pp. 30-31). There was general agreement that “we must have period analysis in the way indicated by Mr. Robertson” (Boianovsky and Trautwein, 2003, p. 19)

The work was published in June 1937 under the title *Prosperity and Depression: A Theoretical Analysis of Cyclical Movements*, some 16 months after the publication of the *GTOEIM*.⁵ The book was in two parts. The first part sets out summaries of existing theories of the cycle, according to the following categorisations: monetary, over-investment, changes in cost efficiency, under-consumption, psychological and ‘harvest’. Keynes’s work was included as a ‘psychological’ theory, with elaboration in a footnote (extracted):

8

In recent years, it has become fashionable to lay stress on the element of expectation. Keynes’ “General Theory of Employment, Interest and Money” is conceived in terms of expectation; and, at an earlier date, the conception of economic expectation was interpreted and developed by the Swedish school ... (Haberler, 1937, p. 135)

The second part of the book set out the ‘synthesis’. The underlying approach and the specific approach to the *GTOEIM* were in line with Robertson’s perspective. A combination of classical and neo-classical theories could explain the problems that the League had concerned itself with; Keynes made no great advance, merely pointed towards the necessary areas where synthesis was required:

In the course of this analysis of existing theories, it became apparent that many of the seeming differences of doctrine were due rather to the use of different terminologies than to any more fundamental causes.

The measure of agreement which appeared to exist between those who have devoted special attention to the problem of the trade cycle seemed to justify an attempt to make from their theories even at this early stage of the work the general synthesis which constitutes the second part of this

⁵ The text stresses that “the manuscript of Part I of this book was substantially completed by December 1935; that of part II, by May 1936. An attempt has, however, been made to refer, at least in footnotes, to some of the important publications which have appeared after the completion of the relevant parts of the manuscript” (Haberler, 1937, p. 2).

volume. This synthesis, however, is more than a simple patching together of the theorems of others: it is an attempt to create a living and coherent, if incomplete, theory on the basis of the knowledge at present available. (*ibid.*, pp. iv-v)

In specific theoretical terms, as Robertson's reference illustrated (above 3.3.2), the book set out a loanable-funds approach to interest, adopted Robertson's interpretation of the savings-investment relationship and advocated the accelerator theory of investment.

Haberler issued a second edition of the book in 1939. The new 'Preface' explained some modification in the light of criticism, and the main innovation: a chapter which "deals with the very rich literature on the subject which has come into existence since the completion of the manuscript of the first edition" (Haberler, 1939, p. iii).

In this new chapter Haberler explained "The greater part of the literature to be discussed in this chapter emanates from, and centres around, Mr. KEYNES' *General Theory of Employment, Interest and Money*" (*ibid.*, p. 197). The interest was not in the *GTOEIM* in its own right, but the need to incorporate it and the subsequent literature (in particular the 'alternative theories' debate) into the LoN synthesis. Standing in the way of this reconciliation were merely exaggerations of differences and terminological difficulties:

... these theories suffer from the fact that their authors have not been able to make clear in all cases whether apparent differences between their views and those of other writers rest on different empirical assumptions or only on a different usage of terms; in other words, whether differences are of a material kind or of a purely terminological nature.

There can be no doubt that, in recent years, the discussions on saving and investment and the possibility of their being unequal, on hoarding, liquidity-preference and the rate of interest, and similar topics, have made it increasingly evident that purely verbal misunderstandings and slight differences in the definition of terms have played a very great role. ...

Even in those instances where the new theories amount to nothing more than a terminological innovation and cannot be said to be in material contradiction to the traditional views, they have sometimes served a useful purpose, by bringing to light hidden implications in the older

theoretical schemes and forcing the propounders of ‘rival’ theories to make all their assumptions clear and explicit. (*ibid.*, p. 205)

He goes on to cite approvingly Robertson’s work:

Professor Robertson has recently made an attempt at separating terminological from substantial differences. Cf. “A Survey of Modern Monetary Controversy” in *The Manchester School*, Vol. 9, No. 1, April 1938 as well as Hicks’s ‘Mr Keynes and the Classics ...’ (*ibid.*)

However it was the synthesis in Hicks’s *IS-LM* guise that made the crucial contributions, and came to dominate the economic debate; we therefore return to the chronology after publication of Robertson’s *QJE* review.

3.3.4 *IS-LM* emerges

The models that have become known as ‘Keynesian’ were, at first, little more than algebraic representations of Robertson’s two diagrams. They were ‘loanable-funds’ models to the extent that higher activity required the higher supply of money that pushed up the rate of interest. While Hicks’s *IS-LM* model is the most famous, a number were produced by different economists with reasonably close links to Robertson. Three models – Hicks’s, Harrod’s and Meade’s – appear to have been put together in the second half of 1936 specifically for a conference on Saturday 26 September 1936 at Oxford University. This conference has achieved notoriety as the conference from where Keynesianism emerged.

In his excellent *Interpreting Mr Keynes: The IS-LM Enigma*, Warren Young (1987) examines the similarity between the three models put to the conference. He poses the question: “If the equational representation of Keynes’s system in all three *IS-LM* papers is identical, how did this come about?” (Young, 1987, p. 32). According to the argument here, this came about because all three young economists were tackling the same problem: the mathematicisation of Robertson’s diagrams. Young also cites a letter from Hicks to Meade that is unambiguous illustration of collaboration between the economists:

Dear Meade,

Harrod has asked me to send his paper on to you, and I take the opportunity of returning your own paper at the same time. I am sorry not to have returned your paper before, but I was waiting till I saw Harrod's before I decided what to write myself, and I didn't know how much of yours I should want until then. Now I have got a good deal of my paper done, and can manage without that from now on. I am taking up a number of Harrod's points, but making my paper on the whole rather critical of Keynes. I have got some maths in my paper, and have been careful to use your symbols, so as not to cause unnecessary confusion.

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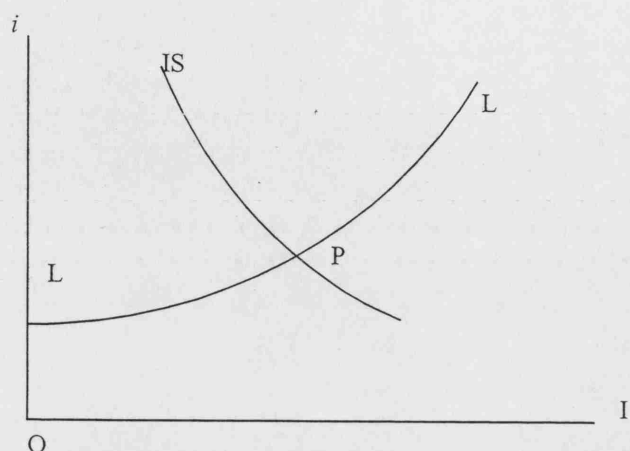
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Hicks's equations and famous *IS-LM* diagram (Figure 3.4 below; at this stage, it was known as *SILL*) represent respectively Robertson's two diagrams and then a picture of their possible resolution.

Figure 3.4: Hicks's Diagram



The equations in Hicks's paper represent Robertson's 1934 diagram as follows: DD' , 'the declining marginal productivity of new lendings in industrial uses', becomes $I_x = C(i)$, where i is the rate of interest; SS' , 'representing the rate of new available savings per atom of time', becomes $I_x = S(I)$. Hicks expresses both in terms of I_x , "income earned in investment trades" (Hicks, 1937, p.148), due to his use of the equation "Investment=Saving" (*ibid.*, p.149). I denotes "Total Income" (*ibid.*, p.148). The IS curve is then defined as the locus of solutions to this diagram: "The curve IS can therefore be drawn showing the relation between Income and interest which must be maintained in order to make saving equal to investment" (*ibid.*, p. 153).

Robertson's *QJE* review depiction of the liquidity preference schedule, " LL_1 , the locus of P ", is represented by Hicks as $M = L(I, i)$. Hicks derives LL , the locus of solutions to this diagram, by taking a given money supply: "Against a given quantity of money, the first equation, $M = L(I, i)$, gives us a relation between Income (I) and the rate of interest (i). This can be drawn out as a curve (LL) which will slope upwards, since an increase in income tends to raise the demand for money, and an increase in the rate of interest tends to lower it" (Hicks, 1937, p. 153).

Hicks turned Robertson's diagrams into a set of five simultaneous equations in five variables (in later notation: Y, I, S, i, M). However, as is widely recognised, he did not stop here:

In order to elucidate the relation between Mr. Keynes and the "Classics," we have invented a little apparatus. It does not appear that we have exhausted the uses of that apparatus, so let us conclude by giving it a little run on its own.

With that apparatus at our disposal, we are no longer obliged to make certain simplifications which Mr. Keynes makes in his exposition. We can reinsert the missing i in the third equation, and allow for any possible effect of the rate of interest upon saving; and, what is much more important, we can call in question the sole dependence of investment upon the rate of interest, which looks rather suspicious in the second equation. Mathematical elegance would suggest that we ought to have I and i in all three equations, if the theory is to be really General. Why not have them there like this:

$$M = L(I, i), I_x = C(I, i), I_x = S(I, i)$$

(Hicks, 1937, p. 156)

Through this 'mathematical elegance' – rather, inserting a variable into an equation that was not previously a function of that variable – Hicks 'generalised' the model. According to the standard interpretation, Hicks's *IS-LM* thus showed both the *General Theory* and classical theory could be reconciled as individual special cases of an even wider framework - a "generalised' General Theory" (as for example Skidelsky, 1992, p. 622 puts it). The discussion above suggests that this is not how the generalisation evolved. The model began as a separate and rival model that preceded the *GTOEIM*; the generalisation was a trivial algebraic manoeuvre. Furthermore, Hicks's actual presentation of the *IS-LM* model is not consistent with the standard interpretation. Hicks stated his objective as *comparison*, not generalisation:

... Professor Pigou's theory runs, to a quite amazing extent, in real terms.
...

But if, on behalf of the ordinary classical economist, we declare that he would have preferred to investigate many of those problems in money terms, Mr. Keynes will reply that there is no classical theory of money wages and employment. It is quite true that such a theory cannot easily be found in the textbooks. But this is only because most of the textbooks were written at a time when general changes in money wages in a closed

system did not present an important problem. There can be little doubt that most economists have thought that they had a pretty fair idea of what the relation between money wages and employment actually was. ...

... If we can construct such a theory, and show that it does give results which have in fact been commonly taken for granted, but which do not agree with Mr. Keynes' conclusions, then we shall at last have a satisfactory basis of comparison. We may hope to be able to isolate Mr. Keynes' innovations, and so to discover what are the real issues in dispute.

Since our purpose is comparison, I shall try to set out my typical classical theory in a form similar to that in which Mr. Keynes sets out his own theory; ... (Hicks, 1937, pp. 147-8)

In particular he aims to bring to bear a newly defined 'classical theory of money wages' (achieved in three pages) and his simultaneous equation version of the *General Theory* on a specific issue: "... how does Mr. Keynes come to make his remarks about an increase in the inducement to invest not raising the rate of interest?" (*ibid.*, p. 154). Two paragraphs later he implies that the increase in the inducement to invest that he has in mind is one due to public spending "(Mr. Keynes in 1936 is not the first Cambridge economist to have a temperate faith in Public Works)" (*ibid.* p. 154). He concludes, of course, that an increase in 'the inducement to investment' might not increase the rate of interest if the LM schedule is flat. This conclusion is driven by his characterisation of the fixed *LL* curve as follows: "It will probably tend to be nearly horizontal on the left, and nearly vertical on the right" (*ibid.* p. 154).

If a framework can *illustrate* the differences between two theories in the context of a specific problem, it does not follow that the framework encompasses and supersedes those two theories. Nor does Hicks make this claim in the paper; the closest he comes is as follows: "[t]hese, then, are a few of the things we can get out of our skeleton apparatus. But even if it may claim to be a slight extension of Mr. Keynes' similar skeleton, it remains a terribly rough and ready sort of affair" (*ibid.*, p. 158). Furthermore, if this were genuinely the achievement of the paper it would be a most astonishing feat and demanding the highest accolade. No such accolade was forthcoming from Keynes.

3.3.5 *IS-LM* approved

Nevertheless, from this point on, Hicks's interpretation of the neo-classical model began to dominate mainstream discussion. In the first place it was used by proponents of loanable funds to support their arguments. The first occasion was during the course of the 'alternative theories' debate. It has already been observed how Keynes aimed his contribution at, among others, Hicks. In his response, Robertson used Hicks's (1937) *Econometrica* presentation (five months after its publication) to support a concession to Keynes that would become known as the liquidity trap: "And I am prepared, too, with Mr. Hawtrey and Mr. Hicks,^[6] to concede to Mr. Keynes that so-called 'liquidity' considerations might in certain conditions set a limit to the practicable fall in the long-term rate of interest, ..." (Robertson, 1937, pp. 433-4).

The second occasion was more substantial. As the 'alternative theories' debate was developing in the UK, the June 1938 *American Economic Review* published a paper by M. Millikan, 'The Liquidity-Preference Theory of Interest': "This paper is an expansion of some remarks delivered before a Round Table on General Interest Theory at the Fiftieth Annual Meeting of the American Economic Association in Atlantic City, December 29, 1937" (Millikan, 1938, p. 247). At the start of the paper Millikan acknowledges that "specific criticisms here advanced are derived almost entirely from the work of others"; a footnote elaborates: "especially" Robertson's *QJE* review, Robertson and Ohlin's contributions to the 'alternative theories' debate and both Hicks's review of the *GTOEIM* and his just published *Econometrica* article. After some discussion, Millikan precisely predicts the terms on which the economics profession would accept liquidity preference. These terms were according to an 'equilibrium theory' as follows:

It is this equilibrium concept that will, I suspect, ultimately come to be taken as the substance of Mr. Keynes's theory of interest, ... Drawn up subject to the strict assumptions outlined above and stripped of the

⁶ Footnoted: "*Capital and Employment*, p. 214: *Econometrica*, April 1937, pp. 154-5". The 'liquidity trap', along with the Pigou effect, were debated as central issues by future Keynesians. They were not central to the *General Theory*.

inconsistencies ... the theory can, I think, be made formally perfectly valid. Mr. Hicks has shown us what it looks like when we subject it to this overhaul. ...

In Mr. Hicks's formulation the dependence of i on all these factors is clearly brought out and hence the two curves which appear as proximate determinants of i (the IS curve and the LL curve) satisfy at least to a considerable extent the Criterion of Evident Dependence [simply that the theory should include the 'Evident' variables]. (*ibid.*, p. 257)

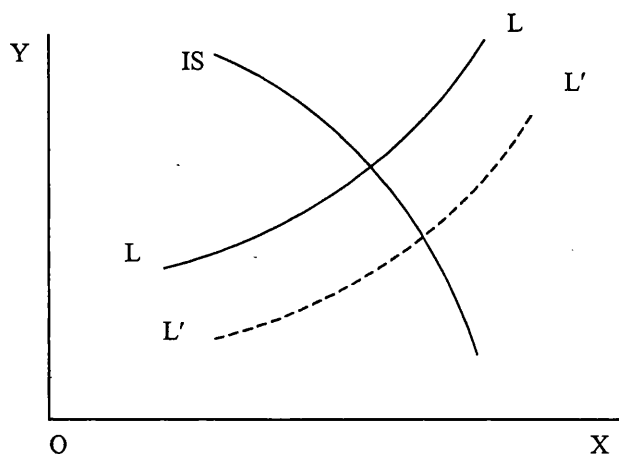
In his 'Summary and Conclusion' he looked to the more complicated presentation of 'Keynesianism' that would emerge later:

I think most modern economists would reject as emphatically as does Mr. Keynes the theory that i is determined solely or proximately by the supply of real savings and the demand for real capital for investment. I think they would agree that a *complete* theory of interest is to be found only in a many-dimensional formula involving a number of variables in addition to those specified in Mr. Hicks's generalized version of *The General Theory*. (*ibid.*, p. 259)

The Keynesian model next emerged in late 1937, with the force of a Royal Economic Society Presidential Address. The initiative saw A. C. Pigou pursuing the theme of a neo-classical 'theory of money wages', and taking steps toward the notion of a 'Keynes effect'. The latter limited the role of the rate of interest to explaining the transmission mechanism between a cut in wages and lower unemployment. Keynes was ill when Pigou's (1937) paper was accepted for publication. On recovery, he attempted to halt its publication (see CW XIV, p. 234); failing to do so, he wrote a two-page rejoinder for the next issue of the *EJ*. While Keynes rejected Pigou's argument on the grounds of faulty logic, the same *EJ* also contained a more generous response to Pigou's article by Kaldor (then at L.S.E.). Kaldor did not dispute Pigou's conclusion, but argued that it could be better stated in terms of a number of macroeconomic functions: $M=f(r)$, $S=\psi\{r,x\}$, and $V=\phi\{r,I/wx\}$, with V , velocity, w , money wages, x , total employment and others obviously defined. The primary analytical technique was a discussion of the size and sign of various partial derivatives. $IS-LM$ made its appearance at the end of the article, in a footnote of the second to last page:

This proposition could be best illustrated by the type of diagram used by Dr. Hicks [shown below as figure 3.5]... . Measuring real output (or employment) along OX , and the rate of interest along OY the curve IS (determined by the I and S functions) shows the various levels of real output at which savings are equal to investment, at different rates of interest. The LL curve, depending on the M and V functions, shows the money rates of interest consistent with different levels of output. A reduction in money wages cannot affect the position of the IS curve, but it will shift the LL curve to the right; for, by reducing the size of “working balances” at a given level of real income, it enhances the size of “idle balances,” and thus reduces the interest rate consistent with that level of output. Its effect therefore is exactly the same as that of an increase in the quantity of money or a reduction in liquidity preference. It is, in fact, nothing more than an alternative way of increasing the quantity of money in terms of wage units (cf. Keynes, *General Theory*, p. 267). If the banking system pursues a policy aiming to keep the rate of interest constant, the LL curve will be horizontal and the effect on employment will be nil. If dM/dr is large, the effect on employment of any reduction in wages can only be small. (Kaldor, 1937, p. 752)

Figure 3.5: Kaldor's diagram



Pigou rejected Keynes's critique: "I have not been able to follow the reasoning of Mr. Keynes' short note" (Pigou, 1938, p. 134); but he accepted Kaldor's argument: "As Mr. Kaldor has shown, it is possible to extend an algebraic analysis of the type used in the study of our model to conditions nearer to real life" (*ibid.*, p. 138).

Robertson was involved in both the preparation of Pigou's original article and its publication.⁷ His correspondence with Keynes indicates he supported both Kaldor's and Hicks's techniques:

The argument requires re-stating, as it has been re-stated by Kaldor (p. 4, top), as a *reductio ad absurdum*. As thus re-stated, it proves what it sets out to prove, viz. that the new equilibrium position is one of increased employment. (CW XIV, p. 252)

As we approach the real world, the considerations advanced by Viner (*Q.J.E.* Nov. '36, p. 161) and Hicks (*Econometrica*, Ap. '37, p. 156 [the page that first depicts the 'generalised' model]) appear to me to assume governing importance. But that, again, is another story. (*ibid.*, p. 254)⁸

As will be addressed in Chapter 4, Keynes made a substantial tactical error treating these models so lightly. In this specific case, he never responded to Kaldor's piece in print. Nevertheless his private correspondence with Pigou strongly suggests that he was not satisfied. First, on 20 October 1937, he wrote: "It is also difficult for me to leave the matter to Kaldor, because, at any rate in the first version of his article, there is, from my point of view, a very important mistake ... " (CW XIV, p. 257). Keynes does not, however, explain the nature of this mistake. Secondly, on 3 January 1938, he wrote:

Kaldor is mainly a re-statement of my *General Theory* with reference to your special assumptions. These special assumptions make it possible, of course, to reduce it to a simpler form without losing anything. On the other hand, it is really the general case one has to consider, and that it seems to me would be very difficult to treat along these lines. (CW XIV, p. 267)

Both of these robust and important statements will be pursued in Chapter 4. As Young (1987, p. 111) has noted, Kahn appears to have been most alive to the consequences of events: "I have not seen Kaldor's article but I am sure that publication of it will darken counsel. After all we could all of us write replies to Pigou if you wanted them and I do not see why Kaldor should be thus favoured" (Kahn to Keynes, 22 October 1937, CW XIV, p. 260).

⁷ See dialogue between Keynes and Austin Robinson (CW XIV, p. 239) and Pigou's published acknowledgement to Robertson (Pigou, 1937, p. 422).

As a postscript, Pigou was undeterred. In 1941, under cover of the war, he issued a book: *Employment and Equilibrium – A Theoretical Discussion*. It was greeted with rapturous applause on both sides of the Atlantic – Samuelson’s and Kaldor’s reviews well capturing the true nature of the work:

... this is one of the most important books of recent years. Moreover, it reveals with remarkable force the extent to which the Keynesians all along have been speaking classical prose, at the same time that “classicists” have thought in Keynesian poetry. (Samuelson, 1941, p. 552)

But the book is more than just a confirmation of Mr. Keynes’ propositions reached by a different and more “classical” route. For in the course of the investigation Professor Pigou develops a technique which is eminently suited for a systematic treatment of problems relating to the general level of activity and its fluctuations; ... (Kaldor, 1941, p. 459)

Just after Keynes’s January letter to Pigou, yet another *IS-LM* interpretation was published in the February 1938 *Economica*. Young (1987, p. 9) notes that in this contribution O. Lange expressed matters in “real terms”. In the Millikan liquidity preference contribution discussed earlier, the work is footnoted as follows: “A similar formulation [to Hicks] comes to my notice as this goes to press. ... Mr. Lange’s statement of the theory is nearly identical with that of Mr. Hicks, though he puts it to a different use. My remarks concerning the one apply in substantially the same form to the other” (Millikan, 1938, p. 257).

3.3.6 Modigliani’s synthesis

In the light of macroeconomic debate today, the contribution of by far the greatest importance was due to F. Modigliani (based on his PhD thesis). The contribution underpinned the ‘neo-classical synthesis’, virtually eliminated the role of the theory of liquidity preference and the rate of interest from economic discourse, and at the same time moved the centre of gravity of economic debate to the United States.

Modigliani’s ‘Keynesian’ model claimed Hicks as predecessor: “In reconsidering the Keynesian system we shall essentially follow the lines suggested by J. R.

⁸ Young (1987, p. 111) also discusses Robertson’s approach to Kaldor’s paper.

Hicks in his fundamental paper, "Mr. Keynes and the 'Classics'." Our main task will be to clarify and develop his arguments, taking into account later theoretical developments" (Modigliani, 1944, p. 48). He took Hicks's five equations in their generalised form, and merged the model with four more equations and four more variables (below) to give nine equations in nine variables. The equations he added were respectively a nominal/real output relation, a production function, a labour demand function and a function reflecting "Keynesian assumptions concerning the supply-of-labor schedule" (*ibid.*, 1944, p. 47).

$$Y=PX$$

$$X=X(N)$$

$$W=X'(N)P$$

$$W=\alpha w_0 + \beta F^{-1}(N)P$$

Y , was now the notation for 'money income'; P , 'price level'; X , 'an indicator of physical output'; N , 'aggregate employment' and; W , 'money wage rate'. The fourth of these equations introduced, for the first time, an algebraic depiction of 'stickiness'.

The paper is also notable for a further alternative development of Keynesian economics: making the model dynamic. This was achieved by a seemingly arbitrary allocation of time subscripts to a subset of equations from his nine equation model. The need to solve this complex dynamic system in turn intensified the degree of mathematicisation of macroeconomics. No justification for the economic validity of this step was offered.

In the course of his analysis the, by then wholly accepted, device of distinguishing between the so-called 'Keynesian' case and the 'generalised system' allowed Modigliani to reject two of the fundamental conclusions of Keynes's economics:

The liquidity-preference theory is not necessary to explain under-employment equilibrium; it is sufficient only in a limiting case: the "Keynesian case." In the general case it is neither necessary nor sufficient;

it can explain this phenomenon only with the additional assumption of rigid wages. (*ibid.*, pp. 75-6)

In conclusion, then, the statement that unemployment is caused by lack of investment assumes implicitly that every possible economic system works under the special conditions of the “Keynesian case”; and this is clearly unwarranted. (*ibid.*, p. 77)

Given the rejection of the role of liquidity preference, Modigliani’s explanation for unemployment centred on wage behaviour:

I. As long as wages are flexible, the long-run equilibrium rate of interest is determined exclusively by real factors, that is to say, essentially by the propensity to save and the marginal efficiency of investment. ...

II. If wages are rigid it is still true that the long-run equilibrium rate of interest is determined by the propensities to save and to invest but the situation is now more complicated; for these propensities depend also on money income and therefore on the quantity of active money which in turn depends itself on the level of the rate of interest. ... We want however to stress again that the dependence of the rate of interest on the quantity of money does not depend on liquidity preference. (*ibid.*, p. 88)

This conclusion is perhaps hardly surprising given his imposition of a classical labour market onto the Keynesian model. We see here the emergence of the short-run ‘sticky wage’ and long-run ‘flexible wage’ position that has remained the mainstream interpretation of Keynes’s economics right up until today:

Most macroeconomists believe that the crucial difference between the short run and the long run is the behavior of prices. *In the long run, prices are flexible and therefore can respond to changes in supply or demand. In the short run, however, many prices are “stuck” at some predetermined level.* Because prices behave differently in the short run than in the long run, economic policies have different effects over different time horizons. (Mankiw, 1992, p. 215, his emphasis)

In Romer’s *Advanced Macroeconomics* textbook, first published in 1996, a virtually identical copy of Modigliani’s model is set out as alternatively the ‘standard’ or ‘textbook’ ‘Keynesian model’. Only the sticky wage aspect is explicitly attributed to Keynes: “The aggregate supply portion of the model in Keynes’s *General Theory* (1936) begins with the assumption that the nominal wage is rigid (at least over some range): $W=W [\text{bar}]$.” (Romer, 1996, p. 215).

It is unclear if Keynes was aware of the existence of Modigliani's assault; no written comment has been published. Under the entry for 'IS-LM analysis' in the *New Palgrave*, Leijonhufvud has written: "Thus the debate came to the distinctly odd conclusion that Keynes had revolutionized economic theory by asserting the classical platitude that when money wages are too high for equilibrium in the labour market unemployment is the result" (Leijonhufvud, 1987, p. 1003).

In this way, Modigliani (1944) marks the point where theoretical contributions to Keynesian economics ceased. 'Keynesian' economics therefore culminated in a position that emphasised as strongly as possible its rejection of the central theoretical and practical component of Keynes's theory. Today the modern depiction of the 'Keynesian position' continues to be Modigliani's position.

The validity of Modigliani's conclusions depend entirely on four very substantial theoretical steps – what might be called the 'necessary propositions of Keynesian economics': (i) Hicks's simultaneous-equation depiction of the *General Theory* is a wholly complete depiction of the *General Theory*; (ii) Hicks's depiction of the classical theory is similarly complete; (iii) the mathematical generalisation of the two depictions into the five-simultaneous-equation model is a valid generalisation in the economic sense; and (iv) the grafting of a classical model onto the generalised *IS-LM* model is also a valid technique in the economic sense. The reality of modern Keynesian economics is that it has never addressed the theory from this perspective; it has simply chosen to accept the propositions without acknowledging that such a step has been taken. The only justification for this abandonment of analysis, investigation and rigour is the notion that Keynes accepted Keynesian economics. This claim is analysed in detail in Chapter 4. Given the validity of the broader argument, the notion is absurd.

It is of profound and central importance to the exposition in this thesis that *any* Keynesian 'reconciliation' between the prejudice of Keynes's senior colleagues with Keynes's model was at the expense of the nature and theoretical substance of Keynes's economics. In all its main points the Keynesian framework accorded with the complaints of Keynes's senior colleagues despite Keynes's protest against these complaints.

3.3 Keynesian policy

At the same time as undermining Keynes's theoretical contribution, the Keynesian economists motivated the shift in practical policy debate from the fundamental importance of monetary and international financial policy to the importance of fiscal policy. Fiscal policy was the only game in town from the end of W.W.II until the arrival of monetarism.

According to the *General Theory*, periodic and violent crises are in the nature of a usurious market system. The evidence of experience suggests, furthermore, that the political nature of a usurious market system is to resort to non-market measures in order to deal with these crises. The public buildings, infrastructures and military-industrial complexes of the world's great Empires are testament to the long-recognised effectiveness of 'public works' to counteract – temporarily at least – a failure of market activity.

Such policies involve the mobilisation of private individuals' income to bolster failing private enterprise. This mobilisation is either immediate through taxation or deferred through borrowing – usually at an inflated cost through capital markets. As many have pointed out, such policies are also a key element of the totalitarian solution – communist or fascist – to the Economic Problem. Keynes's *monetary* solution to the Economic Problem was a middle way between the *laissez-faire* attitude to finance he recognised as disastrous and the totalitarian approach to economic control that he saw as equally undesirable: "[t]he authoritarian state systems of to-day seem to solve the problem of unemployment at the expense of efficiency and freedom" (CW VII, p. 381). Public spending policies were not a middle way between fascism and communism.

However, the *General Theory* did offer substantial contributions to the public expenditure debate. First, it provided a framework that explained exactly how public spending policies were effective and how they ultimately financed

themselves in a low-employment equilibrium. Second, the *General Theory* led to the conclusion that any borrowing for such spending should be based on low-interest credit from the banking system rather than high-interest loans from the capital market. This understanding informed the conduct of W.W.II borrowing and led to the innovation of the Treasury Deposit Receipt. This instrument set the government free from finance capital; it allowed the government rather than finance to dictate *both* the volume and the price of borrowing.

The identification of public spending policies as the specific innovation of the *GTOEIM* are, in part, a quirk – perhaps an inevitable one – of history. Keynes wrote his theory between 1932 and 1936, precisely the period when he was most strongly advocating public spending policies due to the depth of depression. Furthermore, in 1931 R. F. Kahn published his famous multiplier paper that Keynes quickly co-opted into the analysis of his pamphlet *The Means to Prosperity*. Keynes obviously understood that public works policies were of the greatest importance in a recession (or high-unemployment equilibrium). However the prominence of these policy initiatives in this period has detracted from the fact that the purpose of his theory remained to explain why these policies had become necessary.

From the perspective of the broader economic policy suggested by the *General Theory*, fiscal policy – both tax and spending – was important in a supportive role to cheap money policy. Re-distributional taxation could be used to increase effective demand via encouraging a higher marginal propensity to consume: “The remedy would lie in various measures designed to increase the propensity to consume by the redistribution of incomes or otherwise; so that a given level of employment would require a smaller volume of current investment to support it” (CW VII, p. 324). Public investment expenditure then had two potential roles. The first was in the event that such policies proved insufficient for full employment: “For my own part I am now somewhat sceptical of the success of a merely monetary policy directed towards influencing the rate of interest. I expect to see the State, ... taking an ever greater responsibility for directly organising investment; ...” (CW VII, p. 164). The second was a longer-run role: when the yield on capital investment was reduced to a level that would not even finance a

rate of interest at a minimum administrative rate, public investment policies would be necessary as follows:

The State will have to exercise a guiding influence on the propensity to consume partly through its scheme of taxation, partly by fixing the rate of interest, and partly, perhaps, in other ways. Furthermore, it seems unlikely that the influence of banking policy on the rate of interest will be sufficient by itself to determine an optimum rate of investment. I conceive, therefore, that a somewhat comprehensive socialisation of investment will prove the only means of securing an approximation to full employment; though this need not exclude all manner of compromises and of devices by which public authority will co-operate with private initiative. (CW VII, p. 378)

The compendium of reviews of the *GTOEIM* illustrates how most non-academic reviews accurately articulated Keynes's overall emphasis on monetary policy with fiscal policies in support:

State control of investment, with as one of its main objectives the forcing down of the rate of interest to a level difficult or impossible to achieve under conditions of uncontrolled investment, is an essential condition of a permanent solution of the problem of unemployment. ... Alongside of his examination of the rate of interest ... Mr. Keynes urges therefore the necessity for measures to increase consumption. (Francis Williams, *Daily Herald*, 4 February 1936, Backhouse, 1999, pp. 21 & 25)

Mr. Keynes is more emphatic than ever that in the long run the trend of evolution will point towards a further considerable decline in interest rates ... Mr. Keynes would like to see an increased degree of State intervention ... Mr. Keynes declares that it is the policy of an autonomous rate of interest, unimpeded by international preoccupations, and of a national investment programme directed to an optimum level of domestic employment, which is calculated to help ourselves and our neighbours at the same time. (Anonymous, *Financial News*, 4 February 1936, Backhouse, 1999, pp. 29-31)

If, then, left to itself, the economic system cannot provide work for all who want it a deus ex machina must be invoked. The State must stimulate consumption by redistributing incomes through taxation (as urged by Mr. Hobson), by forcing down the rate of interest, ... (T. S. Ashton, *Manchester Guardian*, 24 February 1936, Backhouse, 1999, p. 38)

The main contention of the book as a whole, crudely and bluntly summarized, is that the criterion of monetary policy should be neither gold values nor exchange rates, nor even price levels, but the abolition of unemployment. Full employment, Mr. Keynes contends, can only be achieved by a correct monetary policy. ... Mr. Keynes appears in this book, therefore, as a champion not merely of the cheap money policy that

has always been associated with his name, but also of the expansion of social service expenditure as a necessary part of economic as well as social policy. (Anonymous, *The Times*, 10 March 1936, Backhouse, 1999, p. 49)

The very important conclusion, therefore, emerges that when cyclical unemployment exists interest rates should be forced down, and held down until 'full' or 'normal' employment is reached. ... He also realises that interest rates alone cannot always achieve everything, and that in some cases effective demand must be maintained by increased consumption and not increased investment. (Douglas Jay, *The Banker*, April 1936, Backhouse, 1999, p. 58)

He hopes his scheme would eliminate unemployment and he believes that driving the rate of interest down to almost zero would result in a tremendous multiplication of equipment within a generation, at the same time eliminating the rentier class.

Aside from the question as to whether a positive rate of interest is the main factor in keeping us poor, it is worth pointing out that Keynes' vagueness about state control of investment has saved him from showing that under it anything of laissez-faire is left. (Virginus Coe, *Canadian Forum*, vol. 16, May 1936, Backhouse, 1999, p. 65)

Thus, the state should use taxation to curtail private saving; it should supplement private consumption and investment with its own spending; and it should force down and keep down the rate of interest to promote new enterprise. At times the author seems to suggest outright fixing of the volume of investment and of the rate of interest by the government. (Henry C. Simons, *Christian Century*, vol. 53, 22 July 1936, Backhouse, 1999, p. 67)

He wants the State to control the supply of money so as to secure its adequacy for maintaining full employment; and this involves a repudiation of the gold standard, or of any fixed international monetary standard, and also a decisive repudiation of all those economists who wish to stabilise the supply of money. Secondly, he wants the State to control the rates of interest (mainly by adjusting the supply of money) in order to keep these rates down to a point which will make investment worth while up to the level of 'full employment'. This involves a complete repudiation of the orthodox view that interest rates are self-adjusting to a 'natural' level. Thirdly, he wants the State largely to take over, or at any rate control, the amount and direction of investment, with the object of maintaining full employment on the basis of a balanced economic development. (G. D. H. Cole, *New Statesman and Nation*, vol. 11, no. 15, February 1936, Backhouse, 1999, pp. 104-5)

The perspective of academic reviews was different. Of the thirteen reproduced by Backhouse, only two mention policy; Harrod has already been discussed, the

other was Schumpeter. This review does not mention monetary policy, addressing only fiscal policy and doing so in an oblique and provocative manner:

The less said about the last book [of *GTOEIM*] the better. Let him who accepts the message there expounded rewrite the history of the French *ancien regime* in some such terms as these: Louis XV was a most enlightened monarch. Feeling the necessity of stimulating expenditure he secured the services of such expert spenders as Madame de Pompadour and Madame du Barry. They went to work with unsurpassable efficiency. Full employment, a maximum of resulting output, and general well-being ought to have been the consequence. It is true that instead we find misery, shame and, at the end of it all, a stream of blood. But that was a chance coincidence. (Schumpeter, *Journal of the American Statistical Association*, vol. 31, Dec.1936, in Backhouse, 1999, p. 183).

But Schumpeter was the exception; as will be discussed in Chapter 5, in the 1930s most economists were as happy to advocate 'Keynesian' spending policies as they were to support the phoney developments of the phoney neo-classical theory.

Chapter 4

Keynes and 'Keynesian' Economics

4.1 Keynes and his *General Theory*

The *General Theory of Employment, Interest and Money* was not a complete or flawless theory of activity in a free market economy. It was, however, a most substantial contribution to such a theory, and a very significant advance on classical theory. Furthermore, taken in their broadest sense, its central theoretical propositions and its basic policy conclusions, were, according to the present author, correct. This contrast between the rightness of the broad perspective and potential flaws in the detail was one that Keynes fully recognised:

I am more attached to the comparatively simple fundamental ideas which underlie my theory than to the particular forms in which I have embodied them, and I have no desire that the latter should be crystallised at the present stage of the debate. If the simple basic ideas can become familiar and acceptable, time and experience and the collaboration of a number of minds will discover the best way of expressing them. (CW XIV, p. 111)

After the publication of the *GTOEIM*, Hugh Townshend made a number of helpful and important contributions to the debate.¹ In particular he pursued the distinction between the *GTOEIM*, the classical theory and the broader notion of a

¹ Townshend worked for the Post Office; he studied with Keynes for the Civil Service examinations.

General Theory. In the course of a June 1937 review of Hawtrey's *Capital and Employment* he explicitly argued that the *GTOEIM* is usefully recognised as distinct from, but as a substantial contribution towards, this 'general theory of economic activity':

It must, I think, be admitted that Mr. Keynes' excavations into the foundations of classical economics are still (in *The General Theory*) rather encumbered with their own debris. We have, I suggest, to distinguish between Mr. Keynes' less general and his more general theory. There is surely a good deal in Mr. Keynes' book which represents, not quite the most general form of his thesis, but rather earlier stages of his thought before he arrived at a self-consistent new theory of value, subsuming the new theory of interest at which he had originally been aiming. If this view be correct, the theoretical critic who wants to be constructive must approach the book from the standpoint that in it Mr. Keynes is *leading up* himself and his readers to a general theory through a series of partial applications of his central ideas. (Townshend, 1937, p. 324)

This distinction has already been adopted here, with *GTOEIM* used to refer to specific propositions or arguments in the book, and *General Theory* used to refer to the 'general form of his thesis'. This general form is obtained through material in Keynes's writings both before and after publication, and through later arguments of others and of the present author.

Townshend's point that Keynes was writing the theory as he discovered it is clearly important as well. The point is augmented by the widely recognised urgency with which Keynes viewed his task – he feared the totalitarian response to the great depression, a threat that was very real in much of Europe no less in Britain itself. As a consequence, Keynes was taking major theoretical steps but never giving himself the time fully to understand and incorporate each of them.

There were also a number of other factors that consciously held Keynes back from this fuller statement of the *General Theory*. In the first place he addressed the *GTOEIM* to his fellow economists. As a consequence the presentation of the theory saw Keynes setting out his position alongside the relevant components of the classical theory and *vice-versa*, rather than reflecting a logical exposition of his own theory. He expressed this most clearly in a letter to Harrod:

I have been much pre-occupied with the causation, so to speak, of my own progress of mind from the classical position to my present views, – with the order in which the problem developed in my mind. What some people treat as an unnecessarily controversial tone is really due to the importance in my own mind of what I used to believe, and of the moments of transitions which were for me personally moments of illumination. You don't feel the weight of the past as I do. One cannot shake off a pack one has never properly worn. And probably your ignoring all this is a better plan than mine. For experience seems to show that people are divided between the old ones whom nothing will shift and are merely annoyed by my attempts to underline the points of transition so vital in my own progress, and the young ones who have not been properly brought up and believe nothing in particular. The portholes of light seen in escaping from a tunnel are interesting neither to those who mean to stay there nor to those who have never been there! I have no companions, it seems, in my own generation, either of earliest teachers or of earliest pupils; I cannot in thought help being somewhat bound to them, – which they find exceedingly irritating! (to R. F. Harrod, 30 August 1936, CW XIV, pp. 84-5)

This desire to address the classical position led to the *GTOEIM* departing from the presentations of his theory that he had used for students in the years running up to publication. These earlier presentations can be partially seen from Keynes's perspective in the fragments of lecture notes reproduced in the *Collected Writings*. However these reproductions are not extensive. But fuller detail is available in T. K. Rymes's invaluable compilation of the lecture notes taken by Keynes's students during the crucial period of development between 1932 and 1935 (*Notes of a Representative Student*, 1989). After publication, Keynes acknowledged this need for an exposition more in keeping with the real logic of his theory in a letter (April 1936) to Townshend:

I am conscious that this, like a good deal else in the book, is largely the product of the old associations of my mind, the result of always trying to see the new theory in its relation to the old and to discover more affinities than really exist. When one has entirely sloughed off the old, one no longer feels the need of all that. I should like some day to endeavour to restate the whole matter, not controversially or critically or in relation to the views of others, but simply as a positive doctrine. (CW XXIX, pp. 246-7)

Townshend looked forward to such a restatement of matters in his review of Hawtrey cited earlier: "Surely we have here a definitive issue [uncertainty and expectation] which calls for more attention than it has yet received. Is it too much

to hope that, after perhaps another book by Mr. Keynes, setting out his expectational, non-deterministic doctrine *per se* in its most general form...” (Townshend, 1937, p. 325). Much later, the presentation of his theory at the 1945 National Debt Enquiry (NDE) – while brief – was essentially this positive doctrine. Indeed it is through the NDE depiction that the present author came to the interpretation set out here.

In the second place, the manner in which the theory was stated was not perfect. Part of this imperfection stems from the priors Keynes appears to have assumed. He was writing for an audience familiar with his work to date and with the policies that he advocated. His academic audience would have regarded him as a monetary economist, responsible for the important contributions to the theory and analysis of credit that were most comprehensively stated in the *Treatise*. Furthermore, as the extract (section 3.3) from *The Times* emphasises, both the academic and wider audience would have understood his pre-occupation with monetary policy and low interest rates: “Mr. Keynes appears in this book, therefore, as a champion ... of the cheap money policy that has always been associated with his name” (*The Times*, 10 March 1936, Backhouse, 1999, p. 49). To the reader of the *GTOEIM* over a half a century later, these facts are not known and not obvious from the text (although the theory is arguably easier to interpret when they are recognised). Matters are further clouded by Keynes’s intention to focus the *GTOEIM* on matters of theory not policy:

... its main purpose is to deal with difficult questions of theory, and only in the second place with the applications of this theory to practice. (CW VII, p. xxi)

It would need a volume of a different character from this one to indicate even in outline the practical measures in which they might be gradually clothed. (*ibid.*, p. 383)

These problems were set in stone by his never returning to produce a volume that addressed the practical matters in the detail they merited. The exception was the papers for the NDE. These constitute a major contribution, but were made in the relative privacy of official work and have remained there ever since.

On the technical level a number of aspects of the theoretical analysis were not fully treated, either in their own right or in relation to the classical theory. The discussion in Part II attempts to address these issues in some detail, but they can be listed as follows: (i) not setting out the monetary priors to the *GTOEIM*; (ii) the less than clear presentation of the savings-investment identity; (iii) a failure to explore the relation between credit theories and his new theory of money as a store of value; (iv) a lack of a detailed statement of the role of uncertainty in the *General Theory* and the use of Robertson's and Harrod's diagram; (v) an insufficient discussion of the nature of equilibrium in both the short and long runs, particularly in the context of the economic cycle; and (vi) a failure to emphasise and characterise the role of debt in the business cycle process. Shortcomings (i)-(iii) were particularly potent given Robertson's persistent emphasis in these areas.

To draw attention to these shortcomings is not to say that Keynes did not recognise them. As seen, he planned a re-statement of matters, but ultimately time and totalitarianism were his enemies. Moggridge's (CW VII, p. xviii) 'Editorial Introduction' to *GTOEIM*, focuses solely on this intention to restate. He cites an August 1936 letter from Keynes to Hawtrey to illustrate how quickly these plans were formulated:

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, dealing with various criticisms and particular points which want carrying further. Of course, in fact, the whole book needs re-writing and re-casting. But I am still not in a sufficiently changed state of mind as yet to be in the position to do that. On the other hand, I can deal with specific points. (CW XIV, p. 47)

He argues that by Spring 1937 Keynes was making progress towards such a re-casting, and cites an April 1937 letter to Joan Robinson:² "I am gradually getting myself into an outside position towards the book, and am feeling my way to new lines of exposition. Perhaps you will see what I have in mind in my forthcoming lectures" (CW VII, p. xviii). Virtually none of these lecture notes have been

² While excerpted in the introduction to the *GTOEIM*, the full letter is not included elsewhere in *Collected Writings*.

reproduced, but it is certain that such an exposition would have set out a fuller response to his critics.

However, illness intervened: “Unfortunately, the proposed ‘footnotes’ never got beyond the lectures, for Keynes suffered a severe heart attack in the early summer of 1937 and was never able to work at anything near his old pace until war came in 1939 – and then his energies were directed in other directions” (CW VII, p. xviii). From 1939 Keynes diverted all of his energies to the war effort. With the end of the war came his death. The fates vigorously opposed any restatement of his great work.

4.2 Keynes’s ‘approval’ of *IS-LM*

The almost universally accepted justification for the judgement that *IS-LM* is an adequate depiction of *GTOEIM* is Keynes’s comment to Hicks in a private letter: “I found it very interesting and really have next to nothing to say by way of criticism” (31 March 1937, CW XIV, p. 79). Throughout his life, Hicks maintained that this justification was sufficient:

I think I may conclude from this letter (as I have always done) that Keynes accepted the *ISLM* diagram as a fair statement of his position – of the nucleus, that is, of his position. That, in any case, was what it was meant to be – a means of demonstrating the nature of the difference between Keynes and his predecessors – not a statement of what I believed myself. (Hicks, 1977, p. 146)

It is fundamental to the argument in this thesis that this interpretation of Keynes’s comments is incorrect, not justified, has misled to a staggering extent, and, as Kahn puts it, is tragic: “The result has been that the elementary teaching of Keynesian economics has been the victim of *IS-LM* and related diagrams and algebra. It is tragic that Keynes made no public protest when they began to appear” (Kahn, 1984, p. 160).

A number of points must be made, four within the specific context of Hicks's paper, and then taking Hicks's work as part of the wider opposition to the *General Theory*. First, in the most trivial and simplistic sense, neither Keynes's short statement or the whole of his letter to Hicks hardly constitute a wholehearted endorsement of *IS-LM*. Second, by no stretch of the imagination can this brief comment be regarded as an endorsement of the 'necessary propositions' (Section 3.3); chronologically it can have *no relevance* to the fourth necessary proposition that involves the grafting of the classical model onto the *IS-LM* framework. Third, it also seems to have been overlooked that Keynes's comments relate to a draft of Hicks's paper that has not survived (according to Moggridge) and it is simply not known to what extent the draft may have differed from the version published. Fourth, without the 'benefit' of hindsight – even from the published paper – it is arguably impossible to penetrate what exactly Hicks was trying to get at and exactly what Keynes was endorsing. As noted earlier, Hicks's first objective appears to be to construct a neo-classical theory of money wages, but then when he begins to make comparisons it is not clear what models are being compared. When he brings in Keynes's theory it is unclear whether he is bringing it in order to develop the classical model or to develop the Keynes theory in its own right. Even his claim to generality is ambiguous. It is not at all obvious how Keynes would have interpreted Hicks's argument and what therefore he was not 'criticising'.

More substantially, though, it is highly likely that Keynes came to see Hicks's work as merely a variant on the Robertson/Haberler agenda. We see this first in two points of fundamental theoretical substance that Keynes proceeded to address in the course of both the specific reply to Hicks and in the course of the more general controversy about the *General Theory*. These points were loanable funds and uncertainty/expectation. In his private reply he drew attention to these points only as 'notes', but nonetheless, they were substantial criticisms and, moreover, exactly the right criticisms of *IS-LM* given the interpretation of the theory here.

In the case of loanable funds, there can be no doubt that Hicks and his *IS-LM* paper were one of the targets for Keynes's attack. In his response he explicitly objected to the apparent loanable-funds implication in Hicks's theory that an

increase in investment (in Hicks's context, in government expenditure) led to a rise in the rate of interest: "From my point of view it is important to insist that my remark is to the effect that an increase in the inducement to invest *need* not raise the rate of interest" (CW XIV, p, 80). Given the coming 'alternative theories' debate, the same letter also asked Hicks directly about his Robertsonian perspective on rate of interest theories:

In this connection I shall be referring to what you wrote in your review of my book. But you dealt with this very briefly, and I do not really understand what you were driving at. In particular, where you say 'It is a perfectly legitimate method, but it does not prove other methods to be wrong', what exactly are the other methods which you have in mind? (CW XIV, p. 81)

Hicks's response again asserted the Robertsonian position:

Over a short period (short enough to neglect interest charges) a person's receipts minus expenditure must equal net lending plus increment in demand for money. (I mean this as no more than a reflection of the two-sidedness of transactions.) It is thus an identity, and it remains an identity when it is aggregated for all persons and firms. Consequently, if we are seeking to determine (a) prices, supposed for simplicity to move together, (b) the rate of interest, we have three demand and supply equations to determine them (those for 'goods and services', loans, money) one of which follows from the other two. Thus two of the equations, as you would say, are operative equations; one is a check equation. But it is possible to select any one of the three equations as a check equation, and distribute the operative equations among prices and interest as we choose. Thus there are six possible alternative 'theories'; but if they are correctly stated, they all mean the same thing, and are all equally right.

I. Prices determined by effective demand and supply for goods and services; interest by the demand for money; saving and investment a check equation.

II. Prices determined by the quantity of money; interest by saving and investment; effective demand the check equation.

And so on; of course I don't deny that some of these theories would be easier to state accurately than others. (CW XIV, p. 82).

He explained his motivation as follows: "Of course what lies behind this rather silly business is a desire to separate the essential content of your theory from its formal arrangement. I am a convinced liquidity preference man, but I do covet some freedom of choice about the way (or ways) the doctrine shall be expressed." (CW XIV, 83)

Keynes replied in a terse letter on 11 April 1937; the note is reproduced in its entirety and is not notable for any friendliness with his alleged greatest interpreter:

Dear Hicks. I do not really understand how you mean interest to be determined by saving and investment under II, near the bottom of your second page. However, I am trying to bring the whole thing to a head by a short article I shall write for the next *Journal*, commenting on Ohlin's exposition of the Swedish theory of interest regarded as determined by the demand and supply for loans, which is being printed in the same issue. I am there accusing you of agreeing with the Swedes in this matter. If this is a calumny, and your theory is really quite different, forgive me. Yours sincerely, J.M.K. (CW XIV, p. 83)

Moggridge records no further correspondence between Hicks and Keynes on this topic following this rebuke. Hicks did not take the opportunity to claim his theory was different from that of Ohlin and Keynes named Hicks as a loanable-funds theorist⁸ in his published contribution to the alternative theories debate (section 3.3); from this it must be concluded that Hicks was acknowledging that his theory was the same. In this way, Keynes saw Hicks as adhering to a theory of interest that he considered a "fundamental heresy". Given that *IS-LM* exhibits the essential property of loanable funds – to reiterate: that an increase in the inducement to invest raises interest – it is almost certain that Keynes considered his 'alternative theories' critique was relevant to *IS-LM*.

Turning to uncertainty/expectation, in his original response Keynes commented on Hicks's use of simultaneous equations as follows:

At one time I tried the equations, as you have done, with *I* [income] in all of them. The objection to this is that it over-emphasises current income. In the case of the inducement to invest, expected income for the period of the investment is the relevant variable. This I have attempted to take account of in the definition of the marginal efficiency of capital. (CW XIV, p. 80)

Hicks responded: "Of course I agree that it is expected income that logically matters; but the influence of current events on expectations (admittedly a loose

and unreliable connection) seems to me potentially so important, that I feel much happier if it is put in and marked unreliable," (CW XIV, p. 82).

While Keynes's critique was unambiguous, it was private and light-handed. However he made strong and unambiguous public comments on precisely the same issue. In February 1937 Keynes published a paper in the *QJE* that was ostensibly a response to four critiques published in the previous issue. Young has suggested (1987, pp. 18-20, see below) that this paper might be interpreted as a general response to all of his critics. The present author would go further and argue – in a manner that is complementary to the post-Keynesian position – that Keynes regarded this paper as a step towards his commitment to Townshend to produce a more general discussion of matters. Entitled, 'The General Theory of Employment', Keynes also observed that setting the response at a very general level had the positive effect of avoiding controversy:

There are other criticisms also which I should be ready to debate. But though I might be able to justify my own language, I am anxious not to be led, through doing so in too much detail, to overlook the substantial points which may, nevertheless, underlie the reactions which my treatment has produced in the minds of my critics. I am more attached to the comparatively simple fundamental ideas which underlie my theory than to the particular forms in which I have embodied them, and I have no desire that the latter should be crystallised at the present stage of the debate. If the simple basic ideas can become familiar and acceptable, time and experience and the collaboration of a number of minds will discover the best way of expressing them. I would, therefore, prefer to occupy such further space as the editor of this Journal can allow me in trying to re-express some of these ideas, than in detailed controversy which might prove barren. (CW XIV, p. 111)

The first point he chose to emphasise in the paper was the nature of expectation in the face of uncertain knowledge of the future. After four pages, he brought the discussion to bear on two substantive points. Firstly how uncertainty affected holdings of money and the rate of interest:

... our desire to hold money as a store of wealth is a barometer of the degree of our distrust of our own calculations and conventions concerning the future. Even though this feeling about money is itself conventional or instinctive, it operates, so to speak, at a deeper level of our motivation. It takes charge at the moments when the higher, more precarious

conventions have weakened. The possession of actual money lulls our disquietude; ... (CW XIV, p. 116)

Secondly, the impact of uncertainty on investment:

It is not surprising that the volume of investment, thus determined, should fluctuate widely from time to time. For it depends on two sets of judgements about the future, neither of which rests on an adequate or secure foundation – on the propensity to hoard and on opinions of the future yield of capital assets. (CW XIV, p. 118)

After the discussion of investment he makes a statement that is exactly applicable to Hicks:

This completes the first chapter of the argument, namely, the liability of the scale of investment to fluctuate for reasons quite distinct (*a*) from those which determine the propensity 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.

If, on the other hand, our knowledge of the future was calculable and not subject to sudden changes, it might be justifiable to assume that the liquidity-preference curve was both stable and very inelastic. (CW XIV, pp. 118-19)

Furthermore, shortly after producing the *QJE* paper, in Autumn 1936 he lectured in Stockholm. The lecture led to another paper: 'The Theory of the Rate of Interest'. As Young also observes, again there was emphasis on uncertainty:

For the rate of interest and the marginal efficiency of capital are particularly concerned with the *indefinite* character of actual expectations; they sum up the effect on men's market decisions of all sorts of vague doubts and fluctuating states of confidence and courage. They belong, that is to say, to a stage of our theory where we are no longer assuming a definite and calculable future. The orthodox theory, on the other hand, is concerned with a simplified world where there is always full employment, and where doubt and fluctuations of confidence are ruled out, ... (CW XIV, pp. 106-7)

Young discusses the relevance of the *QJE* critique as follows:

It is therefore highly probable that Keynes took the opportunity offered by the 1937 *QJE* paper to address not only his critics and the specific *QJE* reviews but the IS-LM approach as presented by Harrod, Hicks and Meade respectively. ... he is pointing out the main shortcoming of the IS-LM approach which does not, and cannot, take uncertainty into account, ...(Young, 1987, p. 19)

He goes on to cite his own interview with George Shackle as support for this position:

When asked if the core of the *QJE* paper was the emphasis on uncertainty, Shackle replied 'I certainly think so.' Finally, when questioned as to whether he agreed with the contention that Keynes's basic and implicit response to IS-LM is the *QJE* article, he replied 'that is my view exactly'. (Young, 1987, p. 19)

Skidelsky has also put forward this argument independently of Young (or at least does not attribute it to Young):

Ostensibly his answer to criticisms by Taussig, Leontief, Viner and Robertson, it may also be seen as a warning to his mathematical interpreters – a warning completely ignored. It is significant that this restatement of the 'essence' of the *General Theory* is concerned particularly with the effects of uncertainty on investment demand and the rate of interest. ... (Skidelsky, 1992, p. 616)

The relation of this argument to Hicks's 'little apparatus' might seem to be this. Keynes is saying that his own theory is what the classical theory would have had to be had it taken uncertainty seriously. Hicks's 'generalised' *General Theory* was, in other words, redundant, unless it was attached to 'Mr. Keynes's special theory'. (Skidelsky, 1992, p. 618)

On the other hand, Moggridge rejects this position:

Since Warren Young's *Interpreting Mr. Keynes: The IS-LM Enigma*, it has come into the literature that the *Quarterly Journal of Economics* paper 'was intended as a counterweight to the IS-LM approach as endorsed by Meade, Harrod and Hicks', as Peter Clarke (1988, 302) puts it, citing Young (1987, 9-10, 178). There are two problems with this line of argument. One is chronological. The *Quarterly Journal* paper appeared in February 1937. It was thus written before the end of 1936. Keynes did not 'catch up' on his reading and 'go through' Hicks's seminal paper, 'Mr. Keynes and the Classics', until late March 1937, although, of course, he may have browsed in it after Hicks sent it to him the previous October (*JMK*, XIV, 77, 19). The second is the praise Keynes bestowed on the three papers, going so far with Harrod to suggest that 'I should like to

read your paper instead' of his own in Stockholm (*JMK*, XIV, 84). Given this praise, it would seem most unlikely, given his normal behaviour, that Keynes would, as Young suggests, turn and attack these views, especially without explicit attribution. (Moggridge, 1992, p. 595)

But the timing of the article *was* exactly right. The Oxford conference was in September 1936 and this is when Keynes received drafts of the papers (it is unclear if he saw Meade's) and this timing is thus entirely consistent with the provocation for and writing of the *QJE* paper at the end of 1936 (and therefore *is* likely to have 'browsed' in it). Furthermore, in the context of the broader post-Keynesian depiction of the *General Theory*, a critique from the perspective of uncertainty is *exactly the appropriate critique of 'Keynesian' economics*.

4.3 Keynes and the young 'Keynesians'

One can only speculate why, as Moggridge observes, Keynes did not tackle his 'Keynesian' critics more directly. Three reasons come to mind. The first is emphasised in the *QJE* article itself – 'the desire to avoid controversy'. Keynes was clearly stung by the charge that the *GTOEIM* was excessively critical of classical theory. Those who were developing the Keynesian theory appeared to be holding an olive branch out to him and he must have been eager not to discourage these younger academics given his total failure with his older colleagues. The approach adopted in the *QJE*: explaining why his model is different without setting out explicitly the views he is criticising, is exactly consistent with a less antagonistic stance. It would explain too why Keynes did not identify who he was aiming the article at. Second is his ill health, a point hinted at in the controversy with Pigou: "So far as my health goes, it is for me certainly much better that I should get my short note off my chest – without any obligation to return myself to the charge. It is, moreover, only a part of an article, the rest of which deals with others" (CW XIV, p. 257). The third reason (and related to the second perhaps) is his using younger colleagues to respond on his behalf. Towards the end of the Pigou dialogue, Keynes wrote to Kahn as follows: "My present intention is not to say any more myself, but to leave to you any further stage in the controversy" (CW XIV, p. 262). Skidelsky (2002, p. 7) also notes that Keynes

'got Kahn to savage' Haberler and Lerner to 'deal with' a paper on savings and investment by Myra Curtis (see 8.8). Kahn's review (1937) of Haberler's LoN synthesis (1937), Haberler's rejoinder (1938), and a brief re-rejoinder from Kahn (1938) were bitter and acrimonious. In retrospect, perhaps this was inevitable. In this debate there is a glimpse of the high stakes not seen in Keynes's more constructive but perhaps too mild contributions.

Despite Keynes's rebukes, Keynesianism remained a theory that did not incorporate uncertainty or expectation and continued to operate with a loanable funds-type theory of interest. To accept the notion that Keynes had endorsed these models as an adequate and complete depiction of his theories is to argue that Keynes rejected the essential elements of his own theories and their practical implications. Perhaps here Keynes's actions spoke louder than his words. He adhered to and acted on his *General Theory* and its practical conclusions until the end of his life. He never once adopted an *IS-LM* depiction of matters.

Chapter 5

The 'Keynesian' Counter-Revolution and Thereafter

5.1 Introduction

In the 1930s, with the Labour Government out of office, a broad section of the British Establishment turned to advocating 'Keynesian' measures. They sought protectionism and then public works. In parallel, the economic community erected both a phoney theory and phoney theoretical and policy debates. The 'Keynesian' theory was developed and was to be set against a re-emergence of classical arguments. In policy terms it supported a phoney debate, according to a spectrum of degrees of government intervention in an economy. In this way, the difficult debate with Keynes's theory and policy was entirely avoided. Moreover participants were able – as many did – to acknowledge a valid debate without taking a firm or unambiguous stance themselves.

Policy and theoretical positions had an institutional character. Prior to the *General Theory*, opposition to Keynes was centred at the LSE. Von Hayek was brought from Austria to invigorate the attack. After the *General Theory*, the 'Keynesian' position emerged from Oxford. Henderson moved from his Treasury post to All Souls in Oxford. Beveridge, Hicks and Kaldor all transferred from LSE to be 'converted' to the 'Keynesian' cause in Oxford. LSE itself remained the bastion of the classical cause. Cambridge was and remained the only true home of Keynes's economics.

The 'Keynesian' counter-revolution saw the replacing of Keynes with the 'Keynesian' agenda, the erasing of the specifically monetary dimension and the re-invention of Keynes as the intellectual support for the 'Keynesian' agenda. There were four main phases. First, in the pre-war period, the 'Keynesian' arguments were aired, developed and endorsed. Economists lavished praise on each others' work in articles and reviews, and the League of Nations endorsed their approach to economics (Haberler, 1937). Second, during the war, the agenda was formalised as White Papers. Third, after the war, the remnants of Keynes's own agenda was swept aside. The 'Keynesian' agenda and debate took centre stage. The main mechanism for this intellectual transformation was the promotion of a consensus through journal articles and in a new generation of textbooks. 'History' would later permit Hicks the discovery of the 'Keynesian' theory and a mild comment from Keynes was read as his approval of the 'Keynesian' policy agenda and rejection of monetary reform. In the fourth and final phase the 'Keynesian's sought fully to re-establish classical economics. Taking foundations from their microeconomic texts, macroeconomics was re-invented as the sum of microeconomic decisions.

Opposing a consensus promoted with no regard for reason and truth was almost by definition a fruitless task. Yet Keynes's genuine colleagues and followers maintained a low-key protest against the development of 'Keynesian' economics. Only occasionally was the full truth of what was occurring to Keynes's message uttered, but the sum of these contributions undoubtedly rejects the 'Keynesian' agenda in its entirety. From the margins of the profession, a new generation of economists continues to oppose the 'Keynesian' interpretation.

Facilitating and perpetuating this transition is an academic environment of a special character: first, a journal system that permits the selection of papers according to a less than complete intellectual rigour; second, the endorsement of certain books through 'friendly' reviews in key journals; third, the creation of a 'taught consensus' that refers only to one strand of literature and ignores any opposition that might exist; and fourth, awarding pursuit of the agenda so

established through promotions, prestigious posts and awards – none greater or more ostentatious than the so-called Nobel prize for economics.¹

5.2 Phase 1 – Pre-war

... [R]epeated public works bills stem[med] in turn from Senator Wagner's Economic Stabilization Act of 1929, which proposed increased public works spending as private indexes of economic activity fell. The proposal that the government spend more to employ people when unemployment is very high, and thus run a deficit, came well before Keynes was in vogue, and cannot be attributed to any one man or school. (Keyserling in Keyserling *et al*, 1972, p. 134)

Contrary to conventional wisdom, throughout most of the 1930s, 'Keynesian' policies were vigorously advocated and commanded widespread support in both Britain and the United States. While Keynes was primarily concerned with international and domestic monetary reform, a broad cross section of the Establishment turned their support to a more radical retreat from market mechanisms. That is not to say that Keynes opposed such measures: he lent his support to arguments for both tariffs and public works expenditure. The subtle and unspoken yet fundamental distinction was that Keynes saw these measures as *supplementary* to monetary reform; the 'Keynesians' saw the measures as *alternative* to monetary reform.

The retreat from market mechanisms began in 1930, when leading city bankers signed a resolution supporting protectionism:

While we retain the hope of an ultimate extension of the area of free trade throughout the world ... we believe that the immediate step for securing and extending the market for British goods lies in reciprocal trade agreements between the nations comprising the British Empire. (Kynaston, 1999, p. 204)

¹ On point four, the converse was the marginalisation and belittling of those not pursuing the consensus path – well documented by Lee (2004).

In February 1933 the new Chancellor Neville Chamberlain announced a ten per cent general tariff.

While in 1931 the Labour Government was destroyed in the wake of widespread opposition to public works, the opposition was short lived. On 17 October 1932 A. C. Pigou and D. H. MacGregor, respectively professors of political economy at Cambridge and Oxford, headed the signatories to a letter to *The Times* advocating public works expenditure. The other signatories were Arthur Salter, Walter Layton, Josiah Stamp and Keynes himself. Stamp (1880-1941) was a statistician (Vice Chairman, 1925-32 and Chairman, 1935-41 of the Royal Statistical Society) and industrialist (Secretary and Director of Nobel Industries, 1919-26 and president of the London, Midland and Scottish Railway, 1926-41), who also took a number of public roles (e.g. British representative on Dawes and Young Committees on German reparations). He was a vociferous supporter of Keynes (reviewing the *Treatise* for the *Economic Journal*). He was made a Baron in 1938 but was killed in an air raid in 1941. Salter and Layton would be important figures in the post-war world. Salter was variously a bureaucrat (British civil servant and League of Nations official), academic (the Gladstone Professor of Political Theory and Institutions at Oxford and fellow of All Souls) and a Member of Parliament (for Oxford University, 1937-50 and as a member of the Conservative Party, 1951-53). He became a Baron in 1951. Layton was an academic (economics at Cambridge University and then University College London), and then the editor of *The Economist* magazine from 1922-38; *The Dictionary of National Biography* adds that Layton “worked for Anglo-American understanding, European Unity, and the United Nations”. He became a Baron in 1947.

Pigou’s initiative also set in motion the ‘phoney debate’. A couple of days later, Professors T. E. Gregory, F. A. von Hayek, Arnold Plant and Lionel Robbins, all of the L.S.E., wrote to *The Times* opposing public expenditure.

In 1933 Harold Macmillan, one day to become British Prime Minister, set himself up as figurehead for the campaign for what he referred to as ‘economic

nationalism'. The preface of his book, *Reconstruction: A Plea for a National Plan*, explained cause, motive and means:

We must realise the essential contradictions of *laissez-faire* even while we may appreciate the energy and drive of a rugged individualism. The policy we are seeking will only be satisfactory if it goes *deep* enough to correct the maladjustments and reconcile the disharmonies from which our problems arise. But, if revolutionary violence is to be avoided, it must also make its appeal to a sufficiently *broad* strip of public opinion to secure the support for its adoption. It must be at once radical and popular. (Macmillan, 1933, pp. 6-7)

Macmillan then emerged alongside Clifford Allen as leaders of the 'Next Five Years Group' (Skidelsky, 1992, p. 438). Reflecting the cross-party nature of the initiative, Allen was a leading 'Fabian' and member of the Labour Party (he took MacDonald's side when the Labour Party split in 1931). After issuing two pamphlets, a fuller manifesto was published as *The Next Five Years: An Essay in Political Agreement* (1935). The 'Forward' includes a list of 152 signatories drawn from across the British Establishment ("drawn from different parties and schools of thought"). The list also indicates those signatories that were members of the 'drafting Committee': Allen, W. Arnold-Forster, A. Barratt Brown (the Principal of Ruskin College Oxford), Geoffrey Crowther (soon to succeed Layton as editor of *The Economist*), Macmillan and Salter.

The manifesto foreshadowed much of what was to become the post-war agenda. Chapter 1 was titled 'Economic Planning':

The *motive* of profit-making has already, to a greater extent than is commonly realized, ceased to be the mainspring of economic activity in this country: and we think it safe to assume that this tendency will continue in the future, ...

... we believe that the State will find it increasingly necessary to intervene in order to set the *direction* of the economic activity of the community. ...

We assume, then, that the functions of government in relation to economic activities are increasing and will increase, both in range and complexity. ...

We need more economic planning. (Liberty and Democratic Leadership,² 1935, pp. 11-12)

Chapter V turned to 'Banking and Finance':

The importance of monetary policy, though great, can easily be exaggerated. ...

But money is not all-powerful. Many years ago Jevons wrote: "There are men who spend their time and fortunes in endeavouring to convince a dull world that poverty can be abolished by the issue of printed bits of paper. I know one gentleman who holds that exchequer bills are the panacea for the evils of humanity. Other philanthropists wish to make us all rich by coining the national debt, or coining the lands of the country, or coining everything." The forms of these beliefs have grown more subtle, and more plausible in the process, since Jevons' day. But the root-belief is still the same: that by a few simple book-keeping transactions a flood of wealth hitherto pent up by an imperfect monetary system can be released to sweep poverty from the face of the earth.

We do not share these beliefs. (*ibid.*, pp. 98-9)

The most promising suggestion is that currencies should be re-linked to gold, but at parities which could be changed from time to time. (*ibid.*, p. 111)

In the longer run, the task of the Central Bank in regulating credit policy should, as far as it is compatible with its international currency policy, aim at preserving stability. This somewhat vague requirement can perhaps best be envisaged as meaning the stability of the general price-level. ... (*ibid.*, p. 113)

Chapter VIII, under the title 'Social Justice', looked at what was to become known as the welfare state (extracted from the summary in the 'contents' section):

The Social Services. The policy of a National Minimum. ... (1) Unemployment. ... The Means Test to be purged of its harshness. (2) Old Age. ... the urgent need for a State organized system of superannuation allowances. ... (3) Education. ... an increase in the school leaving-age is essential ... (4) Nutrition ... beginning with milk.

Taxation and Equity. ... Possible future sources of tax revenue: the increment in land values; increased surtax rates on 'unearned income'; increased death duties. (*ibid.*, pp. x-xi)

² The authorship is attributed to this ('Orwellian'-sounding) group.

While Keynes had supported tariffs³ and put his name to Pigou's letter, he refused Salter's request to include his name among the signatories:

My own belief today is that neither the real remedy nor the power of persuading people to adopt it will come except from a more fundamental diagnosis of the underlying situation and a wide-spread understanding of this diagnosis and conviction of its correctness. Now, a fundamental diagnosis is just what this document, perhaps quite wisely, entirely avoids; and where one catches a glimpse, by inference, of what the underlying theory of the authors probably is, I find myself much more conscious of differences of opinion than in the matter of the practical proposals. (CW XXI, p. 355)

In this way, Keynes exactly captured the distinction between the 'Keynesians' and himself.

In the meantime Keynes's rivals were developing the theory that would support this policy position. As detailed in Chapter 3, Robertson (1933 & 1934) led the way in Britain. In parallel, the League of Nations actively promoted this approach through Haberler's (1937) survey and synthesis of theory. The *GTOEIM* was then criticised in detail against this emerging perspective. After the initial reviews, two distinct 'Keynesian' approaches emerged. Robertson devoted his attentions to repeated assaults on Keynes's work. Hicks, Pigou and Modigliani instead dropped out of the controversy and developed (and mathematicised) the 'Keynesian' theory. From here the myth concerning the more constructive approach of the 'Keynesian' economists would emerge.

The contributions to the 'Keynesian' theory rarely addressed Keynes's policy conclusions; they simply turned to address contrived practical pre-occupations of their own: the effect of increases in government expenditure, the 'Pigou effect' and the 'liquidity trap'. Furthermore, even discussions of policy tended to be abstract, with policy conclusions often incidental or at least secondary to a tortured exposition of theory. Statements of policy were rare and, when they came, equivocal.

³ But only as second best. See CW XXI pp. 204-210 for a clear statement of his position.

Robertson chose to split his own response to the *GTOEIM* into one theoretical and one practical paper. The latter was first presented as a September 1936 Lecture to Harvard University under the title 'The State and Economic Fluctuations'. At the end of the lecture he set out the vague 'Keynesian' approach to policy:

The advocates of energetic State action against developed depression have had in all countries a hard fight to wage against the forces of apathy and despair. Let us salute them everywhere, in their victories or in their honourable defeats: but let us beg them, whether flushed with success or saddened with failure, to think again before concluding that cheap money and Government deficits, still less trade restriction and exchange manipulation, are the right diet for all phases of the trade cycle or the right remedy for all the economic ills of the world. (reproduced in Robertson, 1966, p. 94)⁴

Even in the liquidity preference / loanable funds guise, the debate carefully avoided conflating theoretical divergences with practical considerations. The closest Robertson came was the following rather oblique reference:

Can the Authoritarian State solve that problem of periodic painless transition from a higher to a lower level of fixed capital formation which liberalistic capitalism has failed to solve, and if so is the achievement worth the price? ... To suspect that from a long run point of view Cheap Money may prove a broken reed and Liquidity Preference a bogey man is not necessarily to suppose that all is for the best in the best of all possible worlds. (Robertson, 1938c, p. 19)

5.3 Phase 2 – W.W.II

While Keynes came to dominate the policies for the conduct of the war, behind the scenes the stage was being set for the counter-revolution. The advocates of 'Keynesianism' looked to turn their vision into official policy for the post-war world. This appears to have been affected by the competing sources of official economic advice. Throughout much of the 1930s the main channel for advice had been the Economic Advisory Council (EAC). Keynes was part of this group, which included two other important 'monetary reformers', Reginald McKenna

⁴ Under the title 'The Snake and the Worm'.

and Sir Josiah Stamp. McKenna was the Chancellor of the Exchequer in Asquith's Liberal Government. As Keynes's chief in the Treasury, he fought hard against financial interests during W.W.I. With Lloyd George's succession, McKenna became the Chairman of Midland Bank. His provocative annual speeches, much praised by Keynes, were published as *Post-War Banking Policy: A Series of Addresses* (1928). However, 'Keynesian' economists were equally represented, with Salter, Layton and Robertson as members, and Henderson, then at the Treasury, providing the secretariat. Despite this strong representation, much of the agenda for monetary reform was promoted and argued out in the Reports of this committee between 1931 and 1938. However, at the end of the 1930s their role was curtailed. While Keynes took up a full time advisory role in HM Treasury during the war, a critical mass for economic advice, particularly in relation to post-war policy, appears to have been transferred to Lionel Robbins's 'Economic Section' of the War Cabinet Office.⁵ As the war progressed, the economic section developed the blueprint for the post-war world: the Coalition Government's *Employment White Paper* (Cmnd. 6527, 1944). Meade produced preliminary papers and then the first draft of the *White Paper* itself (in March 1943), which Robbins then redrafted.⁶

Skidelsky (2000, p. 279) notes that "... Keynes was not importantly involved in its preparation" and Moggridge (1976, p. 132) that: "... Keynes's drafting contributions to the White Paper which followed were few, because of his involvement in an extensive official and ministerial debate on postwar external economic policy and his illness during March and April 1944, the months of heaviest drafting". Skidelsky (2000, p. 282) adds that the final draft "... owed more to Henderson and Eady^[7] than to Keynes".

At the same time, Beveridge produced his (1944) *Full Employment in a Free Society*. Reflecting the institutional dimension, this work emerged from Oxford University, involving, among others, Kaldor, Kalecki and Balogh.

⁵ From where the Government Economics Service (GES) would emerge.

⁶ Howson (2000, p. F129)

⁷ A senior Treasury official.

Both the *White Paper* and Beveridge's book set out variants of the planning consensus. The distinction between them built on and gave a public impetus to the phoney debate along a spectrum of views between free market to state control. Needless to say, the treatment of monetary policy in both reports was less than satisfactory. The *White Paper* was non-committal: "59. For some time after the end of the war it will be necessary, ...to maintain a policy of cheap money. Thereafter, the possibility of influencing capital expenditure by the variation of interest rates will be kept in view" (Cmnd. 6527). While Beveridge (1944) did have a fuller discussion of monetary issues, this was positioned in Annex C – hardly central to the main discussion. Any notion that monetary failure was the cause of the Economic Problem was absent from both reports.

For reasons of space, the discussion here has primarily focussed on events from the British perspective. As the development of the 'Keynesian' theory indicates, there was a very significant international dimension to "Keynesianism". Two specific aspects must be mentioned. First, there was the international debate about post-war financial architecture. Here Keynes's Clearing Union scheme was set against a vastly inferior US design, and watered down at the Bretton Woods negotiations.

Second, there were the parallel developments to domestic policy in the US. While echoing almost entirely those in Britain, in a sense these were more fundamental to future developments because the 'profession' would transfer – no doubt deliberately – its centre of gravity from Britain to the US after the war. Theoretically this was achieved in 1944 by Modigliani; his Nobel autobiography describes the work as integrating "the 'Keynesian revolution', ... with the mainstream of classical economics".⁸ In institutional terms the US counter-revolution was based in Harvard: Haberler arrived from the League of Nations in 1937, Hansen arrived in time for his celebrated conversion to 'Keyensianism' around the same time, and Samuelson began his emergence as "the incarnation of the economic establishment".⁹

⁸ Source: Nobel Foundation website: <http://nobelprize.org/economics/laureates/1985/modigliani-autobio.html>

⁹ Source: Cepa New School website: <http://cepa.newschooll.edu/het/profiles/samuelson.htm>

Hansen set out the US 'Keynesian' agenda in his 1940, *Fiscal Policy and the Business Cycle* – though already in the context of the 'phoney debate':

It is at this point that depression policy emerges in a new role as an important element in a positive governmental program. But an economic minimum cannot be insured by reliance exclusively upon monetary policy. (Hansen, 1941, p. 74)

There is thus emerging a new aim of fiscal policy, vigorously assailed by some and staunchly defended by others – the aim of ensuring full employment of the factors of production. This policy involves greatly enlarged governmental expenditures. (*ibid.*, p. 117)

The public debt is an instrument of public policy. It is a means to control the national income and, in conjunction with the tax structure, to regulate the distribution of income. (*ibid.*, p. 185)

As the end of the war approached, S. E. Harris (1943) set out the 'Keynesian' case in his book, *Postwar Economic Problems*:

Most of the participants – though not all – have been influenced by the writings of Lord Keynes; they are, therefore, disposed to put much emphasis on the measures which must be taken to maintain demand, particularly the contributions to full employment of an improved distribution of income – and hence a rise in the propensity to consume – and public investment. ... Keynesian influence will be especially evident in the parts of the volume devoted to the discussion of full employment and fiscal policies. (Harris, 1943, p. 5)

On both sides of the Atlantic, theory and policy was thus positioned for the 'Keynesian' counter-revolution. There would be two lines of attack: one through journals (phase 3a) and the other through textbooks (phase 3b).

5.4 Phase 3a – the Journals

After the war and Keynes's death, the pages of the *Economic Journal* turned to the merits of the 'Keynesian' agenda in the guise of 'planning'. The boundaries of the debate were set according to a left: Beveridge, a middle: the *White Paper*,

and a right: von Hayek's 1944 re-assertion of *laissez-faire* economics, *The Road to Serfdom*.

However there was a complication. For a brief period, monetary reform continued to be the official policy of Government. The *Report* of the National Debt Enquiry had already offered the response of the monetary reformers to the 'Keynesian' agenda set out in the *White Paper*:

We have been led to form a series of views not completely consistent with the brief references to the matter in the Employment White Paper. Rather we say that the White Paper ought to mean that, subject to uncertainties as to the extent to which and the conditions in which moderate fluctuations should be admitted, (which uncertainties need not be brought too much into the open), the object of Government should be to maintain low interest rates, long and short, for as far ahead as can reasonably be the subject of discussion – certainly far beyond the transitional period. (NDE Report, paragraph 25)

The first-ever majority Labour Government in British history began to pursue the cheap-money policy that was set out in the *Report*. Keynes stayed on as advisor to the Treasury following Dalton's request, and began to advise on the conduct of cheap money. But almost straight after Keynes's death, Dalton very soon found his policy in difficulty. "The forces against me, in the City and elsewhere, were very powerful and determined, ... I felt I could not count on a good chance of victory. I was not well armed. So I retreated" (Dalton, 1954, p. 239).

Part of the 'elsewhere' that Dalton referred to was academia. Alongside the establishing of the 'Keynesian' agenda there was a surely unprecedented assault on an elected government's economic policy. In the June 1947 *EJ*, Hicks raised the spectre of inflation and looked to arguments for the re-deployment of the rate of interest. Henderson followed up with an alarmist piece in the next issue. In 'Cheap Money and the Budget', he argued that the pressure of aggregate demand could not "be allowed to persist indefinitely without disaster" (Henderson, 1947, p. 265). He sought to undermine both the feasibility and the purpose of Dalton's cheap-money policies:

A few months ago there was a disposition among financial experts to lay much if not most of the blame for this over-strong aggregate demand upon the cheap money policy of the Chancellor of the Exchequer. ... Well, my personal opinion is that the cheap money policy has only been a very minor factor in the inflationary complex, so unimportant relatively to other factors as to be scarcely worth considering; and yet I am convinced that Mr. Dalton has carried this policy much too far. I do not believe that it will be possible to keep interest rates down over the next few years at anywhere near the low level of a few months ago; and I fear that it will prove that in trying to establish a long-term rate of 2½%, or even less, Mr. Dalton may have missed the opportunity of turning a large part of what is now either floating or comparatively short-term debt into really long-dated securities on a 3% basis.

.... I see no good reason to suppose that the strength of demand in the general economic system would be materially reduced by somewhat tighter conditions in the money market, or by somewhat higher interest rates, whether short or long. I do not believe that a single industrialist or trader would be deterred thereby from a single act of real investment, whether this be the purchase of additional stocks of materials or the renewal or extension of his plant. (*ibid.*, pp. 265-6)

Ben Pimlott has observed in connection with these episodes: "In weighing the criticisms which began to spread from the academic community just as Labour's extraordinary programme of reform reached its peak ... we should consider how far the ideal society sought by the elected Government and the vision of Dalton's most expert critics coincided, and whether indeed they were compatible" (Pimlott, 1995, p. 475).

Alongside his attacking the monetary initiatives, Henderson bolstered the case for public works, endorsing home, school and hospital building (Henderson, 1947, p. 268). In the next issue of the *EJ*, Robertson turned to discuss

... a widespread and growing conviction that its [the post-war economy's] completion requires something called a National Plan – that for the purpose of effecting it our country must become or remain something which, by contrast with our pre-war arrangements, can fairly be described as a Planned Economy. (Robertson, 1947, p. 422)

He continued to set the parameters for debate along the phoney spectrum:

... the question of how far we want to modify the distribution of income which the free play of economic forces would bring about. ... how far the

satisfaction of wants should be organised *communally* instead of being left to the operation of the market. (*ibid.*, p. 434)

The economics establishment – led at this point by Keynes's main critics: Robertson at Cambridge, Henderson at Oxford and Robbins at LSE – also looked to a post-war theoretical agenda. In 'The Need for Faith', Hawtrey (1946) had already sought to enfeeble his science:

It is a paradox that, as Economic Science has progressed, it seems to have become less authoritative. The authority which economists possessed in public affairs a century ago is neither claimed by them nor conceded by the public. They waver in their advocacy, and retire or compromise apologetically when challenged. ...

I am by no means proposing to commend unyielding faith of that kind to economists. They should undoubtedly be ready at all times to revise their opinions and theories in the light, not only of fresh experience and fresh facts, but of fresh reasoning and criticism. (Hawtrey, 1946, p. 351)

Three years later, Robertson (1949) offered a response to Hawtrey. First, he reiterated the role for economics in assessing the validity of public works. Second, he made a case for the return of classical economics:

As I understand it, the concept of measurable utility, after going through a rough patch, has now been pretty firmly re-established on its throne. ...

... what I am trying to suggest is that the concept of economic welfare is solid and substantial enough to give the economist plenty to think about, ... (Robertson, 1949, pp. 506-7)

Robertson closed the paper with his view on the economist's role in public affairs:

But in the last resort I want him, too, to be rather humble – humbler than some of his great predecessors were disposed to be – content to bow to the judgement of the prophets or even the men of affairs if he is convinced that his case has been properly understood and fairly weighted. (*ibid.*, p. 509)

It is scarcely plausible that ‘great predecessor’ referred to anyone but Keynes. The economists stood aside as the ‘men of affairs’ dismantled the instruments of monetary reform that he had spent 35 years fighting for.¹⁰

5.5 Phase 3b – The taught consensus

Equally critical to the ‘Keynesian’ counter-revolution was the development and promotion of a ‘taught consensus’. Through textbooks, over half a century of economists would be indoctrinated to an acceptable economics set within acceptable parameters of debate. Any dissent was simply omitted from the taught consensus by omission or trivialisation.

The debate was first divided into two, in line with Robertson’s prescription. The validity of government expenditure was the research project underpinning ‘macroeconomics’. The restoration of utility and welfare was the research programme underpinning ‘microeconomics’. This compartmentalisation was obviously wholly opposed to Keynes’s economics, where the paradoxical interactions between micro and macro were central elements of the theoretical story.

On both sides of the Atlantic textbooks were provided by leading ‘Keynesians’, put together before, during and after the war. The teaching of microeconomics would be based on Hicks’s (1939) *Value and Capital* and Samuelson’s (1947) *Foundations of Economics*. The teaching of macroeconomics would of course be defined for close to a half a century by Samuelson’s (1948) *Economics: An Introductory Analysis*. No British macro text gained a similar status, but

¹⁰ In the US, journal articles developed the same themes as in Britain: ‘Full Employment in a Free Society’ – an article discussing Beveridge (1944) by Arthur Smithies (1945); ‘Is a Rise in Interest Rates Desirable or Inevitable?’ by Lawrence H. Seltzer (1945); ‘The Future of ‘Keynesian’ Economics’ by David McCord Wright (1945); and ‘The Changing Significance of the Interest Rate’ by Henry C. Wallich (1946). The penultimate page of the latter included a footnote: “In the long run, I have no doubt but that economic forces rather than policy are determining for the level of interest rates”.

Cairncross's (1944) *Introduction to Economics* covered very similar ground and preceded Samuelson by four years.¹¹

Crudely: the macroeconomic texts were obviously more important to the immediate future of 'Keynesian' economics, but the microeconomic texts were more important to the future of economics in the longer term. Both Samuelson and Cairncross covered very similar ground. Starting from Robbins's economic problem of the allocation of scarce resources, both covered a great deal of elementary microeconomics. The discussion of macroeconomics 'proper' came at the end of both books. A 'Keynesian' theory was set out, centred on a relation between saving, investment and income (the approach is discussed in more detail in Chapter 8 as the 'output adjustment approach'). The key points can be simply stated:

- saving and investment decisions are autonomous, and hence might not 'match';
- investment is lumpy;
- saving is determined by the *mpc*; and
- saving and investment are brought together or into equilibrium by changes in income.

Samuelson introduced the 'Keynesian' cross to solve the problem, with liquidity preference not a necessary component of the basic structure. Both books go on to undermine the role of the rate of interest, and attribute only limited control to the state, e.g.:

The State has comparatively little *direct* control over long-term rates of interest. ... But in the main, the State is forced to influence long-term rates *indirectly* by Bank Rate policy. Now Bank Rate policy, as we have seen, generally affects only short-term rates of interest, and even a very large change in short-term rates will be ineffective in producing a comparable change in long-term rates, ...(Cairncross, 1944, p. 410)

¹¹ Victoria Chick tells me that later Ackley (1961) was important; and that Minsky used to refer to a Keynes 'entombed in Ackley'.

Samuelson goes further to add that even if rates are lowered: “A number of questionnaire studies of businessmen’s behaviour suggest that the level of the interest rate is not an important factor in their investment decisions” (Samuelson, 1948, p. 353). Lastly both books look to fiscal policy, but even then the approach is lukewarm; and both assert Hawtrey’s position with regard to the limited power of economics as a force for substantial social change.

At the same time economics branched out in the new directions that continue to define teaching today. Hicks’s *The Social Framework* (1942b) set the study of economics in the framework of the ‘National Accounts’ (which had been developed primarily under Keynes’s impetus in the 1930s, and refined substantially during the war). Even more importantly, the post-war era saw the full emergence of econometrics. In this, the League of Nations and Robertson were key players. Jan Tinbergen’s (1938) *Statistical Testing of Business Cycle Theories* emerged as the second phase of the League of Nations economic work, purporting to test the theories in *Prosperity and Depression*. The work established the techniques of building and estimating models of macroeconomies.¹² The preface offered handsome thanks to Robertson: “who has ungrudgingly put his time at the disposal of the League for the purpose of consultation with Professor TINBERGEN on the economic issues involved” (Tinbergen, 1938, p. 10).

Lastly, monetary economics became a separate discipline, served in part by Sayers’s *Modern Banking*. First published in 1938 (with a steady series of revisions to 1967), the work is detailed and technical. Despite its publication in the same year as the *GTOEIM*, it avoids any mention of Keynes or any controversy associated with the gold standard and the monetary crises of the 1930s. The book is set in an abstract scholarly context with no history, precedent or context. There is no mention of Keynes’s detailed and groundbreaking work on money in the *Treatise*, nor on the developments in the *General Theory*.

¹² Keynes was not impressed: “... I think it all hocus – worse than Haberler. But everyone else is greatly impressed, it seems, by such a mess of unintelligible figurings. There is not the slightest explanation or justification of the underlying logic” (Keynes to Kahn, 23 August 1938, CW XIV, p. 289).

Occasionally the author betrays his prejudice: “At the other extreme have been monetary cranks who sometimes, and especially at times of trade depression, gain the public ear by imputing to the operations of bankers most of the ills of our economic society” (Sayers, 1967, p. 197).

5.6 Phase IV – the ‘discovery’ of classical economics

In the fourth (and ongoing) phase, the ‘Keynesians’ themselves completed their betrayal and re-built the classical theory. The ‘classic’ contributions of Solow, Samuelson and Modigliani served up a macroeconomics based on classical microeconomic behaviour.

Modigliani started things off; in his own words:

Between 1952 and 1954, Richard Brumberg and I wrote two essays, ‘Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data’ (1954) [and ...] ... Our purpose was to show that the well-established empirical regularities could be accounted for in terms of rational, utility-maximizing, consumers allocating optimally their resources to consumption over their life, ... (Modigliani, 1984, p. 299)

In doing so, he dismissed the already bastardised ‘Keynesian’ theory of consumption.

Then, Solow’s (1956) ‘A Contribution to the Theory of Economic Growth’ set out the ‘model of long-run growth’ that is the foundation of modern macroeconomics and known to all students as the Solow growth model. More specifically, he restored the saving constraint to investment.

Samuelson’s (1958) ‘An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money’ restored a real theory of interest. The paper claimed a “complete general equilibrium solution to the determination of the time shape of interest rates” (Samuelson, 1958, p. 467) based on

intergenerational transfers, and paved the way “for a rigorous attack on a simple model involving money as a store of value and medium of exchange” (*ibid.*).

Diamond (1965) then brought the intergenerational technique and growth models together. The introduction of a government sector allowed public expenditure to cause interest rates to rise given the newly restored saving constraint, and newly labelling the reinvention of the ‘Treasury view’ as ‘crowding out’.

In the same year, Cass (1965) fully resurrected the Ramsey model and so brought together Solow’s production perspective and Modigliani’s approach to consumption through inter-temporal utility maximisation. Ramsey’s paper, written in 1928, contained the essence of all of the elements of the revival of classical economics so richly rewarded by Nobel Prizes.

At the same time Samuelson and Solow set in motion the textbook story of the demise of their own ‘Keynesian’ counter-revolution. Their (1960) ‘The Problem of Achieving and Maintaining a Stable Price Level: Analytical Aspects of Anti-Inflation Policy’, condensed ‘Keynesianism’ into the Phillips curve. The profession stood by and watched all of Keynes’s wisdom and genius transformed into a simple unmalleable relationship that had inflation increase as unemployment fell. His policy was to exploit the trade-off. When the relationship broke down, as common sense tells us that it would, ‘Keynesian’ economics was dismissed. The reality of the dismissal of ‘Keynesianism’ was of course far more complex; but for present generations of economists, only the taught consensus is relevant:

The Phillips curve seemed the answer to the problem of choosing macroeconomic policy in the 1960s, when Keynesian economics was at its most fashionable. ... By selecting fiscal and monetary policy, the government could determine the level of aggregate demand and the extent of involuntary unemployment. ... Something happened to the Phillips curve. (Begg et al, 1991, pp. 506-7)

With the Phillips curve ‘revealed’ to be vertical, the stage was set for the modern position that has a short-run based on *IS-LM* ‘Keynesianism’ and the long run taken from Ramsey. While Friedman is credited with the classical revolution, the

'Keynesians' not only provided the target but the long run to which Friedman appealed had already been conceded in their macro-micro growth theory. The 'contributions' listed in this section continue to constitute the foundation for modern macroeconomic teaching.

5.7 The resistance – or counter-counter-revolutionaries ¹³

How Keynes and his genuine supporters responded to the 'Keynesian' initiatives as they emerged has already been discussed (Chapter 4). Keynes himself was of course exasperated by his treatment at the hands of his reviewers, bored by Robertson's relentless attack and baffled by the initiatives of Pigou and the League of Nations. While he generally addressed each of the 'Keynesian' contributions, he clearly never saw the extent of the threat posed by the sum of the onslaught.

The economics textbooks portray a harmonious evolution of consensus. In reality, the 'Keynesian' counter-revolution was consistently and robustly opposed from the moment it began. The centre of opposition was Cambridge. That Keynes's closest colleagues opposed 'Keynesianism' is in itself a further and substantial statement against the validity of the 'Keynesian' interpretation that has been too easily ignored.¹⁴ Others in both Britain and the US added their voices. Furthermore those opposing 'Keynesianism' were economists of the highest calibre, in most cases having a record of publication and substantial contribution that far outweighed those of the 'Keynesians' themselves.

Considerations of space preclude a detailed discussion of the 'resistance', but the following paragraphs offer illustrative examples of the nature of the opposition.

¹³ This section owes much to JSTOR, a truly wonderful tool for research.

¹⁴ Two who did not contribute to the opposition but were firmly on Keynes's side were Townshend and Shove. Gerald Shove died in 1947, the year after Keynes. Hugh Townshend appears to have given up making contributions to economics in 1940.

In my view the most consistent and truest critic was Richard Kahn – who had of course previously been Keynes's closest theoretical confidant. However, of all the critics, Kahn's critique was lowest key: "... rarely did he come out in the battlefront" (Pasinetti, 1987, p.2).

Kahn's first reaction to the counter-revolution was a commentary on planning. In 'Professor Meade on Planning' (1949) he drew attention to the equivocal stance of those who seemed to be advocating such initiatives: "The appearance of yet another book about planning inevitably provokes the question whether its authoritative and distinguished author is 'for' or 'against'" (Kahn, 1949, p. 1).

But his most important comments were on monetary theory. His 1954 *Manchester School of Economic and Social Sciences* paper defends the theory of liquidity preference. The article was primarily aimed at rejecting Hicks's *Value and Capital* perspective on the rate of interest, a perspective he attributed to 'Keynesian' economists:

"To say that the rate of interest on perfectly safe securities is determined by nothing else but uncertainty of future interest rates seems to leave interest hanging by its own bootstraps." In this famous passage Professor Hicks expressed his dislike of bootstraps. He sought to find a line of escape, based on explaining long-term rates of interest "in terms of speculation on the future course of the short rate," rather than of the long-term rate itself. The same line of escape has been explored by Mr. Kalecki, Mr. Kaldor, and others. (Kahn, 1954, p. 229).

He re-iterated Keynes's own comment - regarding this "modern approach to the theory of the rate of interest which is alternative to Keynes'" as "heresy" (Kahn, 1954, p. 255).

He made equally important statements concerning interest rate policy. In June 1954 *Financial Times* articles he put forward the case for monetary policy action to increase investment:

Monetary policy is surely the answer – in the shape of cheap money and credit expansion ... Do not present problems call for lower long-term rates of interest and for an expansionist rather than a restrictionist application

of the machinery of bank credit? ... The trouble, it appears to me, is that the seat of power has been moved back to the Bank of England. ... It would be a terrible thing if we were to drift back to the situation of some of the inter-war period with the Bank of England subjecting the economy to a monetary stranglehold in order to avoid an excessive capital outflow.

In his October 1958 evidence to the Radcliffe Committee he turned to cheap money in response to questioning from Sayers:

If you are thinking of the difficulty of making money very cheap again in the light of the abandonment of the 2½ per cent. regime, without asking me to express a view as to whether either then or now it would be desirable, I would say that, if it was thought desirable, it could be done; once the market realises that the authorities are serious they will dash in and help the authorities. ... But if they really wanted 2½ per cent., not tomorrow, but at something to aim at in the near future, I certainly believe that they could get it, provided that they did not mind how much the quantity of money went up in the process. (Cmnd. 837, 1960, para. 10993)

In 1978 Kahn was offered the opportunity to present a series of lectures as “an exercise in the development of thought, culminating in the completion of Keynes’ *General Theory*” (Kahn, 1984, p. xvii). These Mattioli Lectures – published in 1984 as *The Making of the General Theory (MOTGT)* – addressed Keynes’s work in a detailed, albeit rather oblique, way. At the broadest theoretical and practical levels, his comments on *IS-LM* and ‘Keynesian’ policy are perhaps most fundamental. In a section entitled ‘Misconceptions about the *General Theory*’, he addressed the inadequacy of the ‘Keynesian’ portrayal of Keynes’s policy and theory:

1) The book contains almost no references to international trade and the problem of reconciling an acceptable balance of payments with a high level of activity. And yet in Keynes’ more practical writings this problem was uppermost in his mind. Very often it took the form of regarding excessive overseas lending as part of the cause of the country’s troubles, both because, if in excess of the current account balance of payments, it resulted in a loss of monetary reserves, and because, to avoid this, the necessary rise in rates of interest had a discouraging effect on domestic investment and so caused unemployment.

Keynes did develop this theme in ‘Notes on Mercantilism’, his penultimate chapter on a number of historical topics. At the very end of the book he wrote that ‘if nations can learn to provide themselves with full employment

by their domestic policy [...] there need be no important economic forces calculated to set the interest of one country against that of its neighbours', each country's exports benefiting from the other countries' high level of activity.

The world has still to accept this simple lesson taught by Keynes.

2) Only in one passage did Keynes advocate the policy with which his name still is so closely associated – largely as a result of *Can Lloyd George Do It?* – 'loan expenditure' by public authorities as a means of sustaining employment if other means fail. ...

... The behaviour of the economy is an immensely complicated subject. The diagrams and bits of algebra in the text-books up to the present day have often led to the difficulties being submerged, and incidentally to Keynes being discredited.

For example, both in his exposition of the liquidity preference theory of the rate of interest and in his exposition of the inducement to invest, Keynes made use of schedules – simple relationships between two parameters, one of the rate of interest in both cases – which could be represented by a curve or by a piece of algebra of the type $y=f(x)$. And yet Keynes' insistence on the overwhelming importance of expectations, highly subject to risk and uncertainty, was one of his biggest contributions. This completely undermines the prevalent idea – for which Keynes' attempt at simplification is responsible – that such schedules can be regarded as stable relationships handed down from heaven. (Kahn, 1984, pp. 158-9)

But the most prominent and outspoken Cambridge critic was Joan Robinson. Her 'Rate of Interest' (1951) preceded Kahn and developed Keynes's position – asserting the more general proposition that the main influence on the rate of interest were social, legal and institutional factors (cited here at the start of Chapter 1). She went on to dismiss the expectations theory attributed to Robertson, Kaldor, Kalecki and Hicks: "The view that the long rate can be determined solely from expectations about the short rate is untenable" (Robinson, 1951, p. 102).

Robinson used a 1962 review of a book by H. G. Johnson to deliver a message to the economics profession (cited by Harcourt, 1987): "These remarks are directed to the whole school of latter-day neo-classicals, who flourish after twenty-five years with honour and respect..." (Robinson, 1962, p. 692). The piece criticised 'Keynesian' theory for having no sense of time nor institutional dimension and offered the quite blunt "But the bastard-Keynesian model is not only silly. It is

seriously defective in logic" (*ibid.*, p. 691). Her most famous attack, and the only one actually acknowledged by the mainstream, was on the classical growth models. She persistently reminded the profession that these models "throw away the *General Theory*" by "mak[ing] savings govern investment" (e.g. Robinson, 1961, p. 360).

But Robinson never pursued the interest rate critique with any vigour and was content to align herself with Kalecki's theoretically more eclectic but still fundamentally 'Keynesian' position in terms of policy. A 1972 lecture to the American Economic Association contained the following categorical (and somewhat depressing) statement: "The supply of finance has an influence on these plans – cheap money makes investment easier. In my opinion, Keynes rather exaggerated the influence of the rate of interest, ..." (Robinson, 1972, p. 4).¹⁵

The other Robinson, Austin, was less forthcoming. But he took the opportunity presented by a lecture on the publication of the first volumes of the *Collected Writings* which he had edited to set out his personal view of the contemporary understanding of Keynes. He concluded as follows:

Were there greater objectives than those he set himself? To create a world monetary and financial system that could achieve adjustment without disaster to one of the parties to the adjustment; to create a world economy in which all countries all the time might be better able to use to the full their manpower and their resources. Almost all that he did, almost all that he wrote throughout his life, was devoted to those two ends. If in the process of reappraisal Keynes does not emerge as a truly great man, something, let me repeat, will have gone sadly wrong with the criteria of greatness. (A. Robinson, 1972, p. 546)

Harrod appears to have been the only Oxford scholar to be faithful to Keynes's policy line. His 1951 biography of Keynes (commissioned by Keynes's executors) remains a fine achievement. The monetary dimension was prominent and straightforward:

¹⁵ For this reason I have not followed the work of Kalecki in this section – he also aimed away from monetary conclusions.

Most important of his contributions during this year [1930] was his article in the September issue of the *Svenska Handelsbanken Index* on the future of the rate of interest. He had become convinced that the time was ripe for a large and permanent reduction throughout the world. This was to be the basis of all his future thinking on economic policy; ... (Harrod, 1972, p. 469)

Equally, he gave front place to the importance of cheap money in his own fairly frequent policy interventions. In 1963, in a retrospective article and a book, *The British Economy*, he deplored the widespread disregard of the theory of liquidity preference and advocated a return to a 3 per cent long-term rate of interest (Harrod, 1963a & 1963b). In a January 1964 article in *Encounter* magazine,¹⁶ he forcefully re-asserted the policy dimension (cited by Leijonhufvud, 1968, p. 14-15):

Keynes always attached the utmost importance to low interest rates; he never ceased to preach them. ... They [members of the Establishment] are being completely anti-Keynesian in regard to the matter that he held to be of the *greatest importance of all*. (Leijonhufvud's [] and emphasis)

He was vigilant to the end, finding it necessary to emphasise that Keynes well understood the nature of the money supply in a credit economy despite the monetarist-‘Keynesian’ debate suggesting otherwise (Harrod, 1970).

In the United States Keynes was defended by a number of scholars. Leon Keyserling chaired the Council of Economic Advisers under President Truman. He was replaced when Eisenhower took office, but began to publish a steady stream of monographs against economic policy and mainstream economics. He devoted particular attention to the damage wrought by rising interest rates, and regarded the 1951 Federal Reserve Accord as one of the US’s greatest policy mistakes.¹⁷ In a 1972 discussion on the ‘Keynesian Revolution’ he offered the following categorical message to the economics profession:

The noisy quarrel between the fiscal and monetary enthusiasts seems to me largely a misplacement of emphasis. The real travesty is that the

¹⁶ ‘Are We Really All Keynesians Now?’, *Encounter*, Jan. 1964, pp. 46-50.

¹⁷ Cited by Brazelton (1997), to whom I am grateful for drawing my attention to the importance of Keyserling’s work.

prevalent monetary policy has fed the fat and starved the lean, restrained the essential and had little effect on the overexuberant, and since 1952 transferred more than \$400 billion in the wrong direction by all economic and social criteria. ...

The time is long overdue for the American Economic Association to start to help overcome the dismal poverty of American economics, for which it and its cherished literature are so largely responsible, and to commence promoting the real purposes of the Employment Act of 1946. Let's get on the track.

I am aware that I may have offended some of your sensibilities, but I hope that I may have also appealed to your saving common sense. (Keyserling *et al*, 1972, p. 138-39)

Sidney Weintraub was equally alive to developments in monetary policy in the 1950s. Through the *Review of Economics and Statistics* he offered a commentary on the inappropriate and unjust actions of monetary policymakers. His perspective is encapsulated by the following: "Economic stabilization would suffer a sharp setback if the view took root that the central banking mechanism was designed to protect bondholders from changes in capital values rather than reserved for broader conceptions of economic policy" (Weintraub, 1955, p. 296). He maintained a fairly prolific output of articles, books and book reviews that mark him out as a bold defender of Keynes's intellectual tradition and opponent of the 'Keynesian' imposter.

Much of his own research was concerned with developing a fuller treatment of inflation consistent with the *General Theory*. Like Harrod, he drew attention to Keynes's monetary economics as a response to the monetarist assault: "Undoubtedly the late Sir Dennis Robertson, and Keynes himself, would have approved the modern monetarist inscription that 'money matters.' Both might be astonished to learn that any economist thought otherwise" (Weintraub, 1971, p. 37).

Lastly, Abba Lerner had moved from Britain to the U.S.. In the late 40s and early 1950s he opposed the raising of the rate of interest as a solution to inflation (which he saw as caused by military expenditure) and emphasised the general Keynes position that inflation was determined by supply and demand (e.g. Lerner 1951). But perhaps his most important contribution was his response to

Samuelson's (1958) part in the restoration of classical theory. He rejected the approach in a robust and rigorous attack that is equally relevant today:

Meanwhile, in the philosophical speculations the imagination is set free from any responsibility for rigorousness of thought, since it can shrug its shoulders and point to the mathematics, which displays all the rigour that one could ask for. (Lerner, 1959a, p. 518)

I owe an apology to Professor Samuelson. In his article he answers a different question from the one I thought he was answering, and his answer is the correct one for his question. But he is answering the wrong question – wrong, that is, if one is to expect it to be fruitful for economics. (Lerner, 1959b, p. 523)

5.8 The 'Keynesian' retraction

In the 1970s and 80s the British 'Keynesians' effectively conceded the validity of their critics' arguments. In the introduction to his 1997 *Economic Perspectives*, Hicks made the following – astonishing – retraction:

What in Keynes corresponds to my *week* is his *short period*. Like my week, it has a past and a future. Its past is embodied in its given initial capital; its future is represented by given expectations, which are wrapped up in his Marginal Efficiency of Capital schedule. ... It was this formal model of Keynes which I myself summarised in the ISLM diagram. There is indeed much more in the *General Theory* of Keynes [sic.] than this formal model, and very much more in some of Keynes's other writings, which can quite properly be used to elucidate his work. (Hicks, 1977, p. viii)

He thus redefined *IS-LM* – rightly according to the argument here – as depicting matters in a given state of expectation. He did not, however, go as far as pointing out that the potential for a state of expectation to change was one of the fundamental contributions and causal propositions of the *General Theory*. Ten years later both Meade and Kaldor conceded the same point in interviews with Warren Young:

I saw it [*IS-LM*] as a general consistent structure; a determined system given expectations. And of course Maynard Keynes was very insistent

that expectations were very variable. But given expectations, I saw it as a coherent system of simultaneous determination in a macro situation ... (Meade interview, Young, 1987, p. 15)

What is wrong with the IS-LM diagram is that it regards investment as a single valued function of these two variables, income and interest, whereas this is only true if the structure of expectations is given ... But this is something which can vary and is very capricious in its variations ... (Kaldor interview, *ibid.*, pp. 112-4)

In a 1980-81 edition of *The Journal of Post Keynesian Economics*, Hicks published 'ISLM: an Explanation'. He finally and grudgingly conceded the contrast between Keynes's and the 'Keynesian' treatment of the rate of interest (albeit in a footnote to the final full stop of the article):

It is well known that in later developments of Keynesian theory, the long-term rate of interest (which does figure, excessively, in Keynes' own presentation and is presumably represented by the r of the diagram) has been taken down a peg from the position it appeared to occupy in Keynes. (Hicks, 1980-81, p. 153)

But such confessions were set against the advent of monetarism. The 'Keynesians' had permitted Keynes to be discarded; it was hardly a large gesture to concede, only then, to the invalidity of their own construct.

5.9 The emergence of post-Keynesianism

Even prior to the 'Keynesians' dropping their own construct, a new strand of economics had been emerging as post-Keynesianism. Much of this approach was more plausible and closer to the *General Theory* itself. There was more emphasis on monetary policy and on the nature of money. Uncertainty was also restored as a key component of the wider analytical framework. However, much of the analysis was or quickly became regressive in terms of Keynes's original theory. From a policy perspective, although interest rate policy was emphasised, this was mainly as an instrument of demand management rather than as the necessity portrayed here. From a theoretical perspective, many of the post-Keynesians rejected the theory of liquidity preference. In doing so they denied the central

component of Keynes's theory as well as losing the route to interest rate manipulation through debt management policy. Lastly, while emphasising the importance of 'endogenous money', many post-Keynesians attributed to the author of the *General Theory* a very primitive understanding of the nature of money as a means of exchange.

In terms of historical development, the move away from *IS-LM* and a quest for a monetary theory might be regarded as beginning in 1965, two years after Harrod's forthright re-assertion of the importance of the rate of interest. Two contributions were of particular interest: Davidson's (1965) 'Keynes's Finance Motive', which attempted to incorporate Keynes's neglected finance motive into the *IS-LM* framework, and Clower's (1965) 'The Keynesian Counter-Revolution: A Theoretical Appraisal' that challenged the "applicability to macroeconomics of the neo-Walrasian system of counting equations and unknowns" as Chick (1992, p. 55) put it. Leijonhufvud's (1968) *On Keynesian Economics and the Economics of Keynes* developed Clower's position and gave prominence to the notion that 'Keynesian' and Keynes's economics were different. On matters of policy, he cited Harrod on interest rates. The book captured and held the attention of the profession in a manner denied to the longer-standing Cambridge opposition.¹⁸ The spotlight then returned to Davidson, whose (1972) *Money and the Real World* would constitute a manifesto for post-Keynesian economics that for many remains unchallenged. The work was not set in the context of the long-standing opposition to the 'Keynesian' construct detailed above, but gave front place to Leijonhufvud's precedence.¹⁹

The new line of thought also led to a revised historical interpretation of Keynes's policy interest. Howson and Moggridge (1974), explicitly motivated by Leijonhufvud's and Davidson's books, introduced the world to a new Keynes. In line with the post-Keynesian perspective, this Keynes regarded monetary policy as a powerful instrument to be used when the situation required.

¹⁸ For example, Solow's (1984) own retreat from the 'Keynesian' position allowed Leijonhufvud a role but gave no mention to Kahn despite the publication of *The Making of the General Theory* in the same year.

Post-Keynesian economics developed with the founding of *The Journal of Post Keynesian Economics* in 1978. Kaldor re-emerged, aided and abetted by Basil Moore (see Chapter 7), as the leading proponent of ‘endogenous money’ and opponent to monetarism (e.g. Kaldor (1986) and Moore (1979)). As discussed in the previous section, a number of other ‘Keynesian’ economists also distanced themselves from *IS-LM* and lined up with the uncertainty /monetary post-Keynesian perspective.

But, as Chick (1992, p. 57)²⁰ argued, “Clower’s analysis is neoclassical in structure and thus unable to illuminate the nature of the keynesian revolution”. Similarly, Weintraub (1982, p. 422) observed that Leijonhufvud’s “creative fame [was] less in setting Keynes’s theory right than in scuttling the mischievous Keynesian versions”. Furthermore, Howson and Moggridge have hardly been evangelical. Their new Keynes does not obviously emerge from Moggridge’s (1992) biography. While Howson has gone on to a number of detailed studies of monetary policy in the first half of the twentieth century; she has not advocated the policy position she implicitly attributes to Keynes. Lastly, Davidson’s and Kaldor’s post-Keynesianism has led to a policy consensus that is little different – if more plausibly justified – than that of the mainstream. Demand management by monetary and fiscal policy is seemingly accepted by one-and-all. And there is no shortage of triumphalism about this happy outcome. If the fuller analysis in this thesis is correct, the need to manage demand only scratches the surface of Keynes’s economics, and misses the fundamental considerations related to the long-term rate of interest that I regard as having the most important bearing on prosperity and sustainability.

¹⁹ He gave generous tribute to his ‘mentor’ Weintraub, but Weintraub’s role as predecessor to the post-Keynesian view was confined to footnotes, whereas Leijonhufvud was central to the main text on page one.

²⁰ Originally published in June 1978 in the *Australian Economics Papers* as ‘The nature of the Keynesian revolution: a re-assessment’.

5.10 Keynes's economics re-emerges

Nevertheless post-Keynesian economics has an underlying validity in its treatment of money and uncertainty entirely absent from the *IS-LM* version. Other post-Keynesian economists pursued their own, often quite individual, lines of thought to restore much of the genuine Keynes.

The present author considers that the work here belongs to the tradition of post-Keynesian economics perhaps originating with Minsky and pursued and developed by Victoria Chick, Sheila Dow and Jorg Bibow. These scholars adhere to a theory of economic activity that encompasses both liquidity preference and endogenous money (these issues are elaborated in Chapter 7). The most substantial difference between their work and the work here concerns the policies I have attributed to Keynes and, following from this, a development of their depiction of liquidity preference theory in line with these policies. The importance of using debt-management policy to achieve permanently low rates of interest across the spectrum as a means to allow economic activity to thrive has not been fully restored. From a methodological perspective there is a shortcoming in this post-Keynesian restoration of expectations. The treatment and analysis of uncertainty has not led to a recognition that expectations can be manipulated. The manipulation of expectation offers policymakers the ability to harness uncertainty and through this, economic activity itself. Taking this slight step, much of Keynes's policy perspective can be restored.²¹

²¹ Although a number of scholars not wholly true to this specific theoretical heritage continue to emphasise the interest rate policy dimension in an admirably forceful manner: e.g. Smithin (1996, p. 57) who also cites Kaldor (1986, p. xxi) and Meltzer (1988); papers by Moore, and Lavoie and Seccareccia in Hamouda and Smithin (1988). From a more historical perspective, Blaug's (1990) interview with Reddaway and Booth's (1989) discussion emphasise the importance of interest rate policy. Lastly, Skidelsky, despite his largely 'Keynesian' portrayal of Keynes, has offered the following (writing as if he were Keynes): "Nothing I wrote has been subject to more misinterpretation than the sentence: 'I conceive ... that a somewhat comprehensive socialisation of investment will prove the only means of securing an approximation to full employment.' This was widely understood as a call for the State to take over the accumulation function from the private sector by methods which included the nationalization of industry. It was supported by the alleged interest-inelasticity of investment – a doctrine I was also supposed to uphold, despite the fact that *all* my theoretical writings, including *The General Theory*, were directed to the problem of securing a reduction in the rate of interest." (Skidelsky, 1997, pp. 432-33, my emphasis). In the second volume of his biography, he reproduced the quotation that opens Chapter 1 here and adds: "For today, in truth, there is little left of Keynes's vision, only some crumbling bones of scholasticism, disinterred for first-year macroeconomics students" (Skidelsky, 1992, p. 502).

5.11 Keynes's great error

Keynes's greatest error was failing to see through the 'Keynesian' subterfuge as it developed. He saw and challenged individual contributions, but not the threat of the whole; nor did he recognise a divergence in policy stance.

In 1939 Keynes provided an anonymous review of the second edition (1939) of Haberler's *Prosperity and Depression* for the *EJ*. While he picked out the critical point, the review illustrates his casual approach to his rivals' initiatives:

Generally speaking, Prof. Haberler accepts the broad line of Mr Keynes's theory as valid, but finds nothing significantly new in it except the insistence on the relationship between hoarding and the rate of interest. 'Apart from this,' he concludes (p. 237), 'we have not yet discovered any essential differences between Mr Keynes's theory and that of the other recognised authorities ... as represented by, say Prof. Pigou's *Industrial Fluctuations*, Prof. Robertson's writings or the synthesis attempted in Part II of the first edition of this book...'. (CW XXIX, p. 275)

In May 1943, on receiving Meade's preliminary work for the *White Paper*, Keynes noted "I think you lay too much stress on cure and too little on prevention" (CW XXVII, p. 326). But when the *Paper* was published, comments in his briefing for the Chancellor indicate that he did not appreciate the underlying rejection of monetary reform:

Criticism. Reference to interest rates in Paragraph 59 has been subject to criticism in some quarters of the Press. It is said that whilst we are promised a continuance of the cheap money policy for the time being, we are threatened with a reversal of it at some later date.

Answer. I have never myself been able to make much sense of that paragraph. ... (CW XXVII, p. 375)

Only in his final speech (see 2.1) is there a record of his acknowledging an alternative policy agenda that he attributed to the 'totalitarians in our midst'. But it is possible that the requirement in his will for the publication of 'My Early Beliefs' reflected a final recognition of the extent of his naivety:

We claimed the right to judge every individual case on its merits, and the wisdom, experience and self-control to do so successfully. ...

What matters a great deal more is the fact that it was flimsily based, as I now think, on an *a priori* view of what human nature is like, both other people's and our own, which was disastrously mistaken. ...

We were among the last of the Utopians, or meliorists as they are sometimes called, who believe in a continuing moral progress by virtue of which the human race already consists of reliable, rational, decent people, influenced by truth and objective standards, who can be safely released from the outward restraints of convention and traditional standards and inflexible rules of conduct, and left, from now onwards, to their own sensible devices, pure motives and reliable intuitions of the good. ... it was because self-interest was *rational* that the egoistic and altruistic systems were supposed to work out in practice to the same conclusions.

In short, we repudiated all versions of the doctrine of original sin, of there being insane and irrational springs of wickedness in most men. We were not aware that civilisation was a thin and precarious crust erected by the personality and the will of a very few, and only maintained by rules and conventions skilfully put across and guilefully preserved. We had no respect for traditional wisdom or the restraints of custom. We lacked reverence, as [D. H.] Lawrence observed and as Ludwig [Wittgenstein] with justice also used to say – for everything and everyone. It did not occur to us to respect the extraordinary accomplishment of our predecessors in the ordering of life (as it now seems to me to have been) or the elaborate framework which they had devised to protect this order. ... As cause and consequence of our general state of mind we completely misunderstood human nature including our own. ... I behave as if there really existed some authority or standard to which I can successfully appeal if I shout loud enough – perhaps it is some hereditary vestige of a belief in the efficacy of prayer. (CW X, pp. 446-8)

He closed the essay, “[b]ut that is why I say that there may have been just a grain of truth when Lawrence said in 1914 that we were ‘done for’”. Forty years later, Joan Robinson appeared to appeal to the same argument, attributing the loss of his conclusions to the nature of capitalism:

The great trouble with Keynes was that he was an idealist. He thought that when people could understand his theory, could understand how the capitalistic system actually works, they would behave in a reasonable manner and operate the system in such a way as to produce favourable results, to produce a high and stable level of employment. ...

During this period [the twenty years after the war] the understanding which Keynes had supplied of how a market economy operates was smothered. ...

... Keynes was very innocent, he thought that an intelligent theory would prevail over a stupid one. But of course in real life the influence on policy does not come from an intelligent understanding of the economy but from the play of vested interests and from the desire to defend capitalism against the currents of radical thought which have been emerging during this period.

(Joan Robinson opening the discussion at R. F. Kahn's Maitioli lectures, Kahn, 1984, pp. 203-4)

Robinson and Keynes's other genuine followers have been no more successful. It has struck me that while occasional forceful statements were made, their articulations of Keynes's genuine position and theory were infrequent, incomplete and often quite opaque. Perhaps they felt hampered by the same forces against which Keynes was ultimately so powerless.

II. The *General Theory* as Components of Monetary Economics

Chapter 6

Part II: Introductory

I must, however, take this opportunity to apologise at once if I have led any reader to suppose that ... I regard Mr Hawtrey and Mr Robertson as classical economists! On the contrary, they strayed from the fold sooner than I did. I regard Mr Hawtrey as my grandparent and Mr Robertson as my parent in the paths of errancy, and I have been greatly influenced by them. I might also ... adopt[] Wicksell as my great-grandparent, if I had known his works in more detail at an earlier stage in my own thought and also if I did not have the feeling that Wicksell was *trying* to be 'classical'. As it is, so far as I am concerned, I find, looking back, that it was Professor Irving Fisher who was the great-grandparent who first influenced me strongly towards regarding money as a 'real' factor. (CW XIV, pp. 202-3)

Up until the publication of the *Treatise*, Keynes was a neo-classical economist. He and his 'parents' and 'grandparents' recognised that the economic events of most pressing concern to society could not be explained by the classical economics. Keynes and his fellow neo-classical economists developed techniques to explain economic phenomena in what is adequately described as the 'short period'. They did so by turning to monetary economics. Credit mechanisms permitted economies to operate outside the classical equilibrium of labour supply meeting labour demand. But in spite of these developments the neo-classical economists retained a reverence for the classical theory. Their new techniques

continued to accommodate the classical full labour market employment equilibrium as a 'long run'.

In terms of policy, neo-classical economists might either appeal to the ~~to the~~ long period or the short period. As Keynes indicated in the quotation above, he saw Wicksell as a neo-classical economist who sought the classical conclusions. Similarly, Schumpeter (1954, p. 1116) suggests Robertson's and Pigou's neo-classicism aimed to "mak[e] the [monetary] theory palatable to the profession." For Keynes, "*In the long run we are all dead*" (CW IV, p. 65). In practical terms, policymakers should not adhere to the gold standard simply because the theory appeals to a classical long run.

8

It is absolutely fundamental to the interpretation of Keynes presented in this thesis that such long-period and short-period considerations were the dominant matters of theoretical interest and policy concern, not only to Keynes but to the economics profession as a whole, long before the *GTOEIM*.

His *Treatise* was his first attempt at a full theoretical explanation of the operation of a free market economy. His pre-occupation was, as always, practical; but he realised that prior to this point his policy insights were not adequately substantiated in theory. He therefore sought to explain how an economy could 'malfunction', as the British economy so clearly had during the 1920s, and at the same time to reconcile such a prolonged short-period outcome with the underlying long-period equilibrium that he retained from the classical theory. The critical mechanism was a divergence between saving and investment leading to a divergence between 'market' and 'natural' rates of interest. The latter was a manifestation of the underlying long-period equilibrium of classical economics.

With the *GTOEIM*, Keynes ceased to be a neo-classical economist. In his own words:

The composition of this book has been for the author a long struggle of escape, and so must the reading of it be for most readers if the author's assault upon them is to be successful, – a struggle of escape from habitual modes of thought and expression. The ideas which are here expressed so

laboriously are extremely simple and should be obvious. The difficulty lies, not in the new ideas, but in escaping from the old ones, which ramify, for those of us brought up as most of us have been, into every corner of our minds. (CW VII, p. xxiii)

More specifically, with the *General Theory*, the classical long period was gone. Instead, Keynes saw a free market economy as a *multiple* equilibrium system. According to the *General Theory* an economy could be in 'equilibrium' at any level of employment. As is well known, the distinction between the classical system and Keynes's system was then the role of aggregate demand. According to the basic premise of this thesis, the most critical determinant of aggregate demand and hence the 'equilibrium' was the rate of interest.

I have presented the theory that led to these conclusions in three parts, corresponding to Chapters 7 to 10. Chapter 7 includes an historical retrospective of the development of the monetary theory on which the interpretation of the short period was based as Keynes joined the debate. The change from the *Treatise* to the *General Theory* is then argued to be reflected in Keynes's shift of emphasis from money as a means of exchange to money as a store of value. In Chapter 8 I argue that the critical point leading to this change was the 'discovery' of the identity between saving and investment. With this identity, the notions of an equilibrium between saving and investment in the long period, and of a natural rate of interest, must be rejected. In Chapter 9 there is a detailed explanation of his new liquidity preference theory of interest as the focal point of the new theory from which his most fundamental policy conclusions are drawn. Then in Chapter 10 the theory of aggregate demand is presented as bringing together his new monetary theory of interest and the underlying multiple equilibrium structure. However, the discussion of the 'real economy' concentrates on aspects of Keynes's theory that have had less emphasis in the literature. I argue that while the short period occupies most of the *GTOEIM*, relaxation of the assumption that defines the short period throws up interesting questions. Keynes comes to these in Chapter 23, his discussion of the economic cycle. The theory in this chapter concerns sustainability criteria that go beyond the short period and that are related to the yield on capital investment. My interpretation is that these considerations are of great practical importance, in a way that does not come across at all from

the *GTOEIM* itself. The theory leads to the conclusion that simply boosting demand by any means possible is not likely to be sufficient for sustainable growth. Only direct monetary policy action to reduce the long-term rate of interest will lead to both high and sustainable economic activity and employment.

Chapter 7

Monetary Economics, Monetary Policy and Keynes

7.1 Introduction

Keynes's monetary economics were first and foremost practical. An understanding of money and credit mechanisms fostered by Alfred Marshall allowed him to see the flaws in the monetary policy preferences of the financial establishment. He recognised the gold standard as a 'barbarous relic' based on a theory of money relevant only to a commodity money economy and advocated policies that acknowledged the evolution of money. His theory, up to and including *A Tract on Monetary Reform*, however, constituted little more than a conflation of credit-creating mechanisms with classical economics. A story of his theory is the story of how he resolved the inadequacy of this treatment. First, in the *Treatise*, Keynes tried to formalise a fuller link between the two theories. The unsatisfactory results of this work led to his breaking away from the subconscious urge to reconciliation, and more fully drawing out the theory of a monetary economy. While credit creation underpinned this theory, the specific mechanisms were not of importance within the fuller framework of the *General Theory*. In his new work, the central monetary component was the liquidity preference theory of interest, a theory of money as an *asset*. With the passing of time, the role of credit in *GTOEIM* has been lost to nearly all. To make recompense, the discussion of

the evolution of Keynes's policy and theory in this chapter is preceded by a re-evaluation of the underlying role of money in a market economy. It is argued that the fundamental conclusions of the *General Theory* with regard to the rate of interest, are conclusions that rely in the first instance on the nature of money. The development of 'bank money' can theoretically release any constraint on the issue of credit to facilitate economic activity and at the same time means that asset/capital markets operate according to liquidity preference considerations.

7.2 Monetary economics

7.2.1 Schumpeter

Schumpeter, in his *History of Economic Analysis*, defines monetary analysis through a contrast with real analysis:

Real Analysis proceeds from the principle that all the essential phenomena of economic life are capable of being described in terms of goods and services, of decisions about them, and of relations between them. Money enters the picture only in the modest role of a technical device that has been adopted in order to facilitate transactions. This device can no doubt get out of order, and if it does it will indeed produce phenomena that are specifically attributable to its *modus operandi*. But so long as it functions normally, it does not affect the economic process, which behaves in the same way as it would in a barter economy: this is essentially what the concept of Neutral Money implies. Thus, money has been called a 'garb' or 'veil' of the things that really matter, both to households or firms in their everyday practice and to the analyst who observes them. Not only *can* it be discarded whenever we are analyzing the fundamental features of the economic process but it *must* be discarded just as a veil must be drawn aside if we are to see the face behind it. ...

Monetary analysis, in the first place, spells denial of the proposition that, with the exception of what may be called monetary disorders, the element of money is of secondary importance in the explanation of the economic process of reality. We need, in fact, only observe the course of events during and after the California gold discoveries to satisfy ourselves that these discoveries were responsible for a great deal more than a change in the significance of the unit in which values are expressed. Nor have we any difficulty in realizing – as did A. Smith – that the development of an efficient banking system may make a lot of difference to the development of a country's wealth. ... We are thus led, step by step, to admit monetary

elements into Real Analysis and to doubt that money can *ever* be ‘neutral’ in any meaningful sense. In the second place, then, Monetary Analysis introduces the element of money on the very ground floor of our analytic structure and abandons the idea that all essential features of economic life can be represented by a barter-economy model. ... [I]t has to be recognized that essential features of the capitalist process may depend upon the ‘veil’ and that the ‘face behind it’ is incomplete without it. It should be stated once for all that as a matter of fact this is almost universally recognized by modern economists, at least in principle, and that, taken in this sense, Monetary Analysis has established itself.^[1] (Schumpeter, 1954, pp. 277-8, my bold)

The discussion in this section looks to a specific interpretation of how, as Schumpeter puts it, ‘money enters on the very ground floor of our analytical structure’. In order to do so, I draw back from the specific concepts of credit and endogenous money on which the literature is based, and turn in the first place to the *nature* of money. It is of fundamental importance to the discussion in this thesis, and to economic theory and history more widely, that this analysis leads to the conclusion that in a modern bank-money economy the authorities have control of interest. Equally: all inappropriate monetary policies have their most important impact on economic activity through their adverse effects on interest rates.

7.2.2 Money and bank money

Money has both a conceptual and a real nature. In *conceptual* terms, it is the medium, unit of account or *numeraire* that facilitates the fundamental exchange of labour into commodity. (“Human effort and human consumption are the ultimate matters from which alone economic transactions are capable of deriving any significance”, CW V, p. 120.) The notion that the prices of commodities and labour can be expressed in a common and distinct quantity is of profound importance to economic activity. The *real* nature of money is then the substance(s) and/or mechanism(s) that is (are) used as the medium of exchange, and that can also be set aside for the same purposes in the future. Keynes saw this distinction as between ‘money of account’ and ‘money’:

¹ The validity of this last statement may be seriously doubted at the time of writing in 2005.

Perhaps we may elucidate the distinction between *money* and *money of account* by saying that the money of account is the *description* or *title* and the money is the *thing* which answers to the description. Now if the same thing always answered to the same description, the distinction would have no practical interest. But if the thing can change, whilst the description remains the same, then the distinction can be highly significant. (CW V, p. 3)

The conceptual recognition of money is likely to have taken place during the development of *commodity money*, usually based on precious metals, as the ‘thing which answers to the description’. ‘High significance’ attaches most substantially to the evolution of the ‘thing’ from precious metals to *bank money*. The recognition of bank money follows, or even leads, to the great theoretical advance that recognises “Money is not the Value *for* which Goods are exchanged, but the Value *by* which they are exchanged”, a proposition that Schumpeter (1954, p. 322) attributes to John Law.²

In a bank-money economy, the large majority of transactions by value do not involve *cash* (i.e. notes and coins) but are simply based on transfers between bank accounts. Bank money is *intangible*; the amounts held by agents at any point in time are figures stored in a computer, printed occasionally on a bank statement. There is no tangible quantity corresponding to the aggregate of bank money in an economy at any point in time (although it is measurable). Such a tangible quantity/quality is not a necessary characteristic of money. Bank money is acceptable because participants are content that it facilitates the fundamental exchange of labour into commodity, i.e. it satisfies the conceptual role.

However bank money economies continue to retain a role for *cash*. While the vast majority of transactions by value can be carried out without cash, a large number by volume still require the passing of cash from agent to agent. Banks are therefore obliged to supply their customers with cash according to their demand (given their credit or overdraft limit) and therefore require stocks of cash. As is well known, the *cash ratio* reflects the ratio of cash that banks hold for operational and prudential purposes to total deposits. The operational assessment

of this ratio is a probabilistic exercise akin to the setting of insurance premia. Furthermore, the cash ratio is not a constant but a variable that changes over time. (Historically, it has fallen.) The most important influences on this variable are the degree of confidence in the banking system and the state of financial innovation (with substantial inter-dependencies).³

While the actual amount of cash required for economic activity is small,⁴ its provision is of critical importance to that activity. The central bank, as monopoly supplier of cash, can exploit this requirement to take control of economic activity as a whole. The literature is mainly concerned with the central bank's ability to control the creation of bank money, through either price/interest or volume mechanisms. But emphasis on the control aspect has led to neglect of the fundamental property of a bank money economy. Through its provision of cash, the central bank is able to set whatever rate of interest it chooses. This in itself is the most important conclusion of monetary theory when applied to practical policy. The theoretical considerations that lead to this conclusion are developed in section 7.2.3; and the practical techniques that apply this conclusion are addressed in section 7.2.4.

7.2.3 Bank money and interest

The first stage of the theoretical argument is that there is no necessary limit to the volume of credit that can be created in a bank-money system. The intangible nature of money means that the extension of credit is simply a 'book' transaction. A loan involves on one hand a debt and on the other a credit to exactly the same amount to the same individual. The book transaction then enables the recipient to spend the bank money in the way desired. (In an overdraft system, the credit is first; the debt comes later and the associated increase of deposits comes to different individuals.) The main additional consideration is the need on the part of

² The 'famous Mr. Law', as Adam Smith (1776, p. 254) calls him, is discussed in section 5.3.

³ The quantity known as the velocity of money, if it is calculated based on cash in circulation, is in reality a measure of the amount of cash required for economic activity. The speed of circulation of cash is only one of a number of determinants of the cash requirement in a bank-money economy – and probably the least interesting.

the bank creating the credit/debt for additional cash to set against the increased deposits and hence increased spending power due to the new credit/debt. Given central banks can theoretically print and supply cash according to demand, cash is not a necessary constraint (although regulators may try to make it so through institutional arrangements). Furthermore, the actual tendency for all banks to increase credit in parallel (i.e. cyclically) will also tend to limit the cash requirements for individual banks.

The second stage of the argument is that if there is no necessary limit to the volume of credit/debt that can be created then it is essentially a free good. A rate of interest is a price, and prices are paid for scarce resources. Keynes's *Treatise on Money* makes this point explicitly: "Why then, ... if the banks can create credit, should they refuse any reasonable request for it? And why should they charge a fee for what costs them little or nothing?" (CW VI, p. 194). While there is a small cost in administering the banking system,⁵ these are likely to be akin to fixed costs – fairly independent of the volume of credit created – particularly given increasing technology.

Of course, it does not follow that the theoretical ability to extend limitless credit at near-zero price is desirable in practice. From a macroeconomic perspective, the central bank attempts to regulate the issue/volume of credit/debt by manipulating the rate of interest at which it provides cash to commercial banks and at which commercial banks supply credit to the public (discussed in section 7.4 below).⁶ From the perspective of society itself, there are interests in both higher and lower rates of interest. The first favours finance capital; the second favours industry and labour. The rate of interest that prevails in a bank-money economy is a complex compromise between these interests, set alongside a perception of macroeconomic conditions and a large measure of ignorance; it is most certainly

⁴ For example, in the UK the cash in circulation at the end of 2003 was £34 billion and total (retail) deposits at banks and building societies were £743 billion – a cash / deposit ratio of 4.6% (Office for National Statistics, *Financial Statistics*, January 2004, Table 3.1D).

⁵ Clearly the present arrangement is ludicrously over-administered, in particular in terms of property, personnel (number and remuneration) and ceremony.

not *exclusively* predetermined by macroeconomic conditions as the classical economics pretends.

7.2.4 The technical control of interest

In practice, the design and operation of banking systems exploit the nature of money in order to set the rate of interest according to the compromise above. In general terms, control is achieved through the central bank *discounting* assets owned by commercial banks in exchange for cash. As a result of lending, commercial banks will require a certain amount of cash given their assessments of the appropriate cash ratio. The central bank issues this cash in exchange for certain specified assets, known as 'eligible' assets. The actual value of commercial bank assets set against cash is also familiarly known as the 'reserve'.⁷ Banks therefore purchase these assets in the open market in order to 'discount' them at the central bank against cash. The rate of interest at which the central bank discounts these assets is known as the discount rate and is, in turn, the rate that underpins all lending in an economy. (The availability of eligible assets is therefore a potential constraint over credit issue, and is discussed in the context of specific policies at the end of this section.)

The Bank of England (2002) has described the present arrangements in the UK, and a summary of this discussion is a useful illustration of the processes involved. Their broad approach is to discount a wide range of eligible assets in exchange for cash at a rate of interest set by the Monetary Policy Committee (MPC). The specific technical processes for discounting involves settlement accounts (SA, formerly bankers' deposits) and repurchase agreements ('repos'). Each commercial bank has a SA at the BoE that is required to be in credit at the end of each day. The daily process sees SAs debited to the value of new cash required by the banks. The resources to zero-set the SAs are provided by BoE purchase of specified eligible assets from commercial banks (presently these include both long-dated 'gilts' as well as short-dated 'Treasury bills'). The arrangement is

⁶ It is of very great significance to theoretical economics that any control is deemed necessary; for the practical control of money constitutes an explicit recognition that economic agents may not behave sensibly (or 'rationally') when it comes to borrowing in order to spend.

known as a repurchase agreement or 'repo' because the BoE generally buys assets agreeing to sell back at a specified date (usually two weeks later). This majority of the daily amount of aggregate repos required (the 'shortage') is determined by the sum of new cash demands and any previously maturing repo arrangements. BoE (2002) gives an example showing a £1800m shortage, due to £315m in notes and £1402m in maturing repos (the remainder is accounted for by the BoE buying some securities outright). Interest on the repo is charged at the BoE repo rate: the rate set by the Monetary Policy Committee according to their monthly interpretation of economic conditions.

The Bank of England thus sets the rate of interest by providing an endogenous supply of cash to banks that in turn allows banks to lend what they want to the public: "The number of notes issued is ultimately determined by public demand".⁸ The rate of interest so established, known more generally as 'Bank rate', is the rate of interest that underpins lending in the UK economy.

These technical procedures for supplying cash are hence crucial to the operation of the banking system and more specifically to the setting of the rate of interest. While it is likely that the precise arrangements to effect this control have evolved over time and in different countries, the underlying general principle is that the central bank can control the price of credit if it provides an endogenous supply of cash to commercial banks who determine the volume of credit. The literature does not contain a detailed discussion of historic arrangements; while the nature of the supply of money has been examined in great detail, less interest has been paid to the arrangements for supplying cash. A number of statements might suggest that systems according to these general principles have been the norm. Keynes notes in the *Treatise on Money*: "... it is characteristic of modern systems that the central bank is ready to buy for money at a stipulated rate of discount any quantity of securities of certain approved types" (CW VI, p. 189). Galbraith (1975, p. 110) discusses the US banking legislation of 1900: "It allowed the national banks, the good banks of the Establishment, to issue notes up to a full

⁷ The size of the reserve is thus equal to the amount of cash; both are stocks.

⁸ *Fact Sheet* on 'Bank Notes' from the Bank of England web-site (April 2002).

100 per cent of the value of government bonds deposited with the Treasury”. Sir John Clapham’s (1944) official history of the Bank of England goes further back into history: “... the business of discounting was always a principal way by which the Bank put its notes into circulation. Discounters, a pamphleteer wrote in 1707, ‘seldom require money but rather chose their notes’” (pp. 122-23). On the other hand, as will be discussed, a gold standard is in principle at least opposed to such techniques.

7.2.5 Implications

To re-iterate: the importance of the preceding discussion goes far wider than the ability to use the short-term rate of interest for demand management or other policy purpose. A bank-money system permits a more fundamental control of interest – money ceases to be a scarce resource. With such a system in place, economic activity is no longer bound up with the behaviour of those holding wealth. The evidence of experience is that interest rates fall sharply as banking develops and prosperity follows. The three most profound examples are the banking systems that developed first in Italy, second in The Netherlands and third in Britain, alongside the Renaissance, Reformation and Enlightenment, respectively. (The development of these banking systems is examined in more detail in Appendix 7.1.)

The banking story is not, however, the whole story. Fuller control of interest requires control across the *spectrum* of interest rates. The techniques required here depend on the analysis of money as a store of wealth following Keynes’s theory of liquidity preference, and fuller discussion waits until Chapter 9. Nevertheless, the control of interest that Keynes harnessed during the 1930s and 40s stems in the first place from exploiting the underlying nature of bank money. Keynes did not formally connect the existence of bank money with his wider recognition of the ability to control interest through liquidity preference. After the *Treatise*, he took bank money for granted.

Conversely, any system that does not act in accordance with the principles of the preceding discussion is likely to surrender at least a degree of control over

interest. Some such systems developed due to legitimate concerns about a need to control the volume of money created. There are two basic approaches: limiting the amount of cash in circulation and restricting the issue of eligible assets. In Keynes's time, the British authorities adopted specific variants of both techniques. The most obvious method of cash control was the gold standard. This standard of 'sound money' originated in Britain with Sir Isaac Newton's 1717 prescription that sterling currency should be exchangeable for gold at a rate of £3 17s 10 ½d per ounce. Under a gold standard the amount of gold in the Bank of England set a limit to cash issue and therefore, it was thought, to credit. However, if the cash ratio changes then control of cash may still permit a high growth in the supply of credit. On the other hand, if the constraint does bite, then restricting the cash issue could harm the ability to set the rate of interest through the discount rate – with excess demand for cash choked off by a rise in short-term interest rates at clearing banks. In historical terms, however, the original introduction of gold was probably of more importance to confidence than to the actual day-to-day operation of the banking system. It is feasible that the rate of exchange was not binding, particularly as confidence in banking arrangements would have steadily increased. In much the same way, Keynes's *Tract on Monetary Reform* argued later that the arrangement restricting note issue at the time (1924) "has never yet been actually operative; ... it is probable that, if it were becoming operative, it would be relaxed" (CW IV, p. 145). The evidence of longer experience is that actual instances of binding note issue restrictions have been rare and very short-lived.

More generally, the notion of convertibility into gold fails to recognise the nature of money as the medium between labour and commodity. Perhaps gold convertibility was necessary for the acceptance of paper currency, but once paper currency was established gold was no longer necessary. Furthermore, the price and supply of gold are subject to forces which have no relevance to wider economic processes; such forces could and did lead to inappropriate monetary action as from the perspective of economic processes. In a bank-money system, control, if necessary, must be effected through the rate of interest; in order to do

so, the volume of cash demanded by the banks must be accepted, and this is logically opposed to convertibility into a fixed amount of gold.

The second method of controlling the supply of money was controlling the issue of eligible assets. The arrangements outlined in the previous section allow banks to expand credit to whatever extent they like, so long as they have sufficient eligible assets.⁹ In theory, if there are insufficient eligible assets, credit creation should be curtailed. However, such a shortage will again have the side effect of thwarting the ability of the authorities to set the rate of interest. Under these circumstances, prices of eligible assets will be forced up and hence interest rates forced down. Historically, the most concrete example of this type of policy was the 'funding complex', whereby the British Government preferred to borrow by means of long-term rather than short-term instruments (discussed in Chapter 9). It is notable that in the discounting of both gilts and bills, the present BoE system suggests an intention to avoid such an outcome.

Both methods may, however, effect a degree of control, however imperfect, over the aggregate quantity of money. The consensus today of course is that control through the rate of interest is appropriate. Essentially, the setting of price is regarded as superior to trying to set the volume. In order to do so, the volume of money created must be accepted. Anticipating the discussion in Chapter 9, such a conclusion is an example of liquidity-preference reasoning. Furthermore, as described here, the extension of credit sets up a demand for eligible assets. In order to extend the *supply* of credit, banks *demand* eligible assets and cash. This reversal between supply and demand allows the application of liquidity preference theory to the demand for money as a means of exchange alongside the demand for money as a store of value.

⁹ Banks' purchases of for example Treasury bills are also book transactions. In effect, banks increase credit twice, once to purchase the bill and once in extending private credit.

7.3 A brief history of monetary economics

The debate Keynes joined was not new. Monetary debate in Britain can be traced at least to the discussions leading up to the establishment of the Bank of England. These discussions pre-dated and hence were not distracted by classical economics. Commentators in the late seventeenth century looked to the Netherlands and to Italy and saw an unambiguous link between banking, money, low interest rates and prosperity. The most well known comments are due to the merchant, economist and governor of the East India Company, Sir Josiah Child. In his *Brief Observations concerning Trade and the Interest of Money*, he examined the prosperity of the Netherlands addressing mainly the role of the rate of interest but also recognising the role for banks:

... Their use of BANKS, which are of so immense advantage to them, that some not without good grounds have estimated the profit of them to the Publick to amount to at least one million of pounds sterling per annum. ...

[However, discussion focuses on] The Profit That People have received, and any other may receive, by reducing the Interest of Money to a very Low Rate. This in my poor opinion, is the CAUSA CAUSANS of all the other causes of the Riches of that people; and that if Interest of Money were with us reduced to the same rate it is with them, it would in a short time render us as Rich and Considerable in Trade as they are now. (Child, 1668)

Macaulay's *History of England* gives a more general impression of debate at the end of the seventeenth century:

No sooner had banking become a separate and important trade, than men began to discuss with earnestness the question whether it would be expedient to erect a national bank. The general opinion seems to have been decidedly in favour of a national bank: nor can we wonder at this: for few were then aware that trade is in general carried on to much more advantage by individuals than by great societies; and banking really is one of those few trades which can be carried on to as much advantage by a great society as by an individual. Two public banks had long been renowned throughout Europe, the Bank of Saint George at Genoa, and the Bank of Amsterdam. The immense wealth which was in the keeping of

those establishments, the confidence which they inspired, the prosperity which they had created, their stability, tried by panics, by wars, by revolutions, and found proof against all, were favourite topics. (Macaulay, 1907, p. 291)

Following the ‘Glorious Revolution’ in 1688, William III may have brought Dutch banking habits of mind to Britain: “England was transformed financially as well as politically by the Revolution of 1688” (Homer, 1963, p. 147). The Bank of England was established in 1694; Child’s and Macaulay’s arguments suggest that the original intention was to go beyond nationalising the sovereign’s war debts. Soon after, Robert Walpole, the Whig Prime Minister, First Lord of the Treasury and Chancellor of the Exchequer, took giant strides in bringing both the rate of interest and the burden of government debt under control (see Appendix 7.1).

In terms of theoretical analysis, Schumpeter gives priority to John Law in 1705 (p. 295):

John Law (1671-1729), I have always felt, is in a class by himself. ... He worked out the economics of his projects with a brilliance and, yes, profundity, which places him in the front rank of monetary theorists of all times. ... Law’s performance as a monetary theorist is contained in his tract: *Money and Trade considered, with a Proposal for supplying the Nation with Money* (1st ed. 1705, 2nd ed. 1720...). (Schumpeter, 1954, pp. 294-5)

Law offered his monetary proposals to the British, Scottish and French governments. He appears to have received the greatest confidence in France where, as Minister of Finance from 1720, he was responsible for a short-lived implementation of his own proposals. British attempts to reduce the interest on the national debt were, in turn, inspired by Law’s techniques in France.¹⁰ Some observations from his *Money and Trade Considered* give an idea of his perspective:

¹⁰ As noted by Antoin E. Murphy in his 1994 edition of Law’s *Essay on a Land Bank*; whether Law had any influence on the development of the Bank of England is not known.

Domeftick Trade depends on the Money. A greater Quantity employs more People than a leffer Quantity. ... Money being in greater Quantity in *Holland*, whereby it is eafier borrowed, and at lefs *ufe*; He gets Credit for more at 3 or 4 *Per Cent*, ... By a greater quantity of Money and Oeconomy, the *Dutch* monopolize the Trades of Carriage even from the *English*. ... *Some think that if interest were lower'd by Law, Trade would increase, Merchants being able to Employ more Money and Trade Cheaper*. Such a Law would have many inconveniences, and it is much to be doubted, whether it would have any good Effect; Indeed, if lowness of interest were the Consequence of a greater Quantity of Money, the Stock applied to Trade would be greater, and Merchants would Trade Cheaper, from the eafiness of borrowing and the lower Intereft of Money, without any inconveniences attending it. ...
 ... The use of Banks has been the best Method yet practis'd for the increase of Money. (Law, 1705, pp. 13-36)

Throughout the whole of the eighteenth century, the discount rate at the Bank of England was five per cent. Interest rates on long-term government bonds ('consols') were broadly between three and four percent except during the Napoleonic wars and between 1885 and 1900 when ~~it~~ fell from three to close to two per cent (see also Appendix 7.1). As Child and Law predicted, these low levels of interest rates accompanied – caused? – growing prosperity and eventually led to British commercial and financial supremacy. Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations*, published first in 1776, was testament to *these* achievements. As Schumpeter observed (7.2.1 above), Smith was clear about the important role played by banking; nor did he neglect the role of the rate of interest, recording movements over time. He was, as Keynes observed, "extremely moderate in his attitude to the usury laws" (CW VII, p. 352):

/they

When, therefore, by the substitution of paper, the gold and silver necessary for circulation is reduced to, perhaps, a fifth part of the former quantity, if the value of only the greater part of the other four-fifths be added to the funds which are destined for the maintenance of industry, it must make a very considerable addition to the quantity of that industry, and, consequently, to the value of the annual produce of land and labour.

An operation of this kind has, within these five-and-twenty or thirty years, been performed in Scotland, by the erection of new banking companies in almost every considerable town, and even in some country villages. (Smith, 1776, p. 236)

In a country, such as Great Britain, where money is lent to government at three per cent. and to private people upon good security at four, and four and a half, the present legal rate, five per cent., is perhaps, as proper as any. (*ibid.*, 1776, p. 286)

This appreciation of money was undone by practical developments and the dawn of Ricardo's classical economics in the nineteenth century. In notes for his own lectures, Keynes identified and summed up these developments as three 'Grand Discussions'¹¹:

1st The Bullionist Controversy.

Suspension of cash payments by Bank of England 1796 – the bank being *restrained* from paying in cash, though willing to. (Ricardo held that this was unnecessary.) No serious depreciation until 1809, which was the year of Ricardo's *High Price of Bullion*.

1810 Report of the Bullion Committee, the doctrines of the Report being nearly those of R. (cash payments in two years).

War of pamphlets. Bullionists beaten in the House.

1811 Lord Stanhope's Act making it an offence to deal in guineas for notes above their nominal value.

1819 Bill on Bullionist lines.

1820-1821 Cash payments and Lord Liverpool's reform of the currency (Thornton, Tooke, McCulloch).

2nd The Californian and Australian discoveries gave rise to the second grand discussion amongst economists and even the public – Chevalier, Cairnes, Jevons.

3rd The demonetisation of silver in the Latin Union and Germany, combined with diminished production of gold, gave rise to the bimetallic controversy.

Very voluminous literature.

Marshall's evidence before the G. and S. Commission of 1888.

McLeod, Taussig, Nicholson, Foxwell.

Indian controversy. (CW XII, pp. 772-3)

In Schumpeter's terminology, each of these policy debates set monetary theory against real theory and in each case real theory and associated policy conclusions won the day. Ricardo's *On the Principles of Political Economy and Taxation* was actually published during the first controversy (1817) – a context to his theory not usually emphasised. Nevertheless, in each of these debates there were those who

espoused a monetary analysis despite Ricardo's subsequent conquest of academic economics. Schumpeter's tributes to Henry Thornton (in particular in comparison with Ricardo) and Henry Dunning MacLeod merit a glance:

Henry Thornton (1760-1815) must be saluted at once. ... His *Enquiry into the Nature and Effects of the Paper Credit of Great Britain* (1802) is an amazing performance. ... No other performance of the period will bear comparison with it, though several, among them Ricardo's, met with greater success at the time as well as later. (Schumpeter, 1954, p. 689)

... the first – though not wholly successful – attempt at working out a systematic theory that fits the facts of bank credit adequately, which was made by MacLeod, attracted little attention, still less favourable attention. [footnote:] Henry Dunning MacLeod (1821-1902) was an economist of many merits who somehow failed to achieve recognition, or even to be taken quite seriously, owing to his inability to put his many good ideas in a professionally acceptable form. Nothing can be done in this book to make amends to him, beyond mentioning the three publications by which he laid the foundations of the modern theory of the subject under discussion, though what he really succeeded in doing was to discredit this theory for quite a time: *Theory and Practice of Banking* (1st ed., 1855-6; Italian trans. 1879); *Lectures on Credit and Banking* (1882); *The Theory of Credit* (1889-91). (*ibid.*, p. 1115)

Also little discussed is Karl Marx's sophisticated understanding of monetary processes. *Capital Volume III* contained a detailed discussion of the nature, origins and history of credit money and laid out its significance in the context of the class conflict:

The development of the credit system takes place as a reaction against usury. (Marx, 1909, p. 704)

This violent fight against usury, this demand for the subordination of the interest-bearing under the industrial capital, is but the herald of the organic creations, that establish these prerequisites of capitalist production in the modern banking system, which on the one hand robs usurer's capital of its monopoly by concentrating all fallow money reserves and throwing them on the money-market, and on the other hand limits the monopoly of the precious metals themselves by creating credit-money. ...

¹¹ It is unclear whether this characterisation and terminology is due to Keynes; Skidelsky (1992, p. 169) uses it, but attributes it neither to Keynes nor to anybody else. He also refers to 'great' rather than 'grand'.

Against the Bank of England all goldsmiths and pawnbrokers raised a howl of rage. ... the goldsmiths ... intrigued considerably against the Bank, because their business was reduced by it, their discount lowered, and their business with the government had fallen into the hands of this antagonist. (*ibid.*, pp. 708-09)

Finally, there is no doubt that the credit system will serve as a powerful lever during the transition from the capitalist mode of production to the production by means, of associated labor; but only as one element in connection with the great organic revolutions in the mode of production itself. (*ibid.*, p. 713)

But Ricardo “conquered England as completely as the Holy Inquisition conquered Spain” (CW VII, p. 32). The nineteenth century belonged to the advocates of the gold standard.

7.4 Background to Keynes’s monetary analysis and policies

Keynes found himself in an economic policy environment that reflected the triumph of Ricardo and the financial establishment. Their most fundamental legacy from the first grand discussion was the gold standard of the 1844 Bank Act. As Keynes later described, the Act formalised a specific process for control of the creation of bank money by controlling the issue of currency:

The British Bank Act of 1844 prescribed a method of regulation which had some logic behind it at the time when it was introduced – the method (as it is called) of the ‘fixed fiduciary issue’. It requires that the amount of the note issue shall not exceed the amount of the gold reserves by more than a stated amount fixed by law (but capable of revision, of course, from time to time). The idea was to cover the fluctuating margin of the note issue with gold, so that there would always be gold available to redeem all the notes that were at all likely to be presented in any normal circumstances; ... (CW VI, p. 237)

In this way, the gold standard was first an *internal* or *domestic* policy mechanism. However it had equally important international implications. First, there was an implicit exchange rate between two countries on domestic gold standards. Following from this, flows of gold due to trade requirements and associated

exchange rate changes, could impact on the domestic management of the standard and *vice-versa*. While the standard arose from money management requirements at a national level, these international implications came to dominate its operation and its eventual downfall, and were the matters that Keynes concerned himself with.¹²

The fuller background was the wider adoption of the gold standard in the last quarter of the nineteenth century. In the wake of the Franco-Prussian war the newly created German Empire replaced its silver-based monetary system with the gold standard. Over the next years, the United States, France and the Latin Monetary Union all did likewise. As Laidler (2001, p. 13) puts it “there began a twenty year period of slow deflation in gold standard countries” that set the “background to the controversies between advocates of the restoration of bimetallism on one hand, and defenders of gold monometallism on the other”. International conferences in 1878, 1881 and 1892 resolved little. In Britain the *Report of the 1888 Gold and Silver Commission* saw Alfred Marshall looking to alternative systems, but no agreement. While the controversy marked the end of bimetallism as an alternative monetary policy, this was only because a new and more substantial opponent for gold began to emerge. The controversy was upstaged by the development of *gold exchange standards*, as described later by Keynes:

The gold-exchange standard may be said to exist when gold does not circulate in a country to an appreciable extent, when the local currency is not necessarily redeemable in gold, but when the government or central bank makes arrangements for the provision of foreign remittances in gold at a fixed maximum rate in terms of the local currency, the reserves necessary to provide these remittances being kept to a considerable extent abroad. (CW I, pp. 21-22)

Ultimately, and despite the intransigence of the financial establishment, the development of international gold exchange standards led to the end of both the domestic gold standard and to any formal international role for gold. This was the fourth grand monetary discussion.

¹² And to this day the gold standard is primarily regarded as an international architecture.

Keynes attributed his own immersion in and understanding of these issues to his teacher, Alfred Marshall, whose lectures on 'Money, Credit and Prices' he attended in 1905 (Moggridge, 1992, p. 95). He later accorded Marshall a good deal of priority in the development of monetary thought and characterised Marshall's contributions in his 1924 biographical essay (published as Marshall's obituary in the *EJ*):¹³

Since *Money* was from the early 'seventies onwards one of his favourite topics for lectures, his main ideas became known to pupils in a general way, with the result that there grew up in Cambridge an oral tradition, first from Marshall's own lectures and after his retirement from those of Professor Pigou, different from, and (I think it may be claimed) superior to, anything that could be found in books until recently. ...

Marshall printed nothing whatever on the subject of Money previous to the Bimetallic controversy, and even then he waited a considerable time before he intervened. His first serious contribution to the subject was contained in his answers to a questionnaire printed by the Royal Commission on the Depression of Trade and Industry in 1886. This was followed by his article on 'Remedies for Fluctuations of General Prices' in the *Contemporary Review* for March 1887, and a little later by his voluminous evidence before the Gold and Silver Commission in 1887 and 1888. In 1899 came his evidence before the Indian Currency Committee. But his theories were not expounded in a systematic form until the appearance of *Money, Credit and Commerce* in 1923. By this date nearly all his main ideas had found expression in the works of others. (CW X, pp. 189-90)

The essay went on to identify what Keynes regarded as Marshall's key contributions to monetary theory (I have extracted only the headings, and dropped the italics):

- (1) the exposition of the Quantity Theory of Money as a part of the General Theory of Value. ...
- (2) The distinction between the 'real' rate of interest and the 'money' rate of interest, and the relevance of this to the credit cycle, when the value of money is fluctuating. ...

¹³ An essay of "unsurpassable brilliance" according to Schumpeter (1954, p. 834).

- (3) The causal train by which, in modern credit systems, an additional supply of money influences prices, and the part played by the rate of discount. ...
- (4) The enunciation of the 'Purchasing Power Parity' Theory as determining the rate of exchange between countries with mutually inconvertible currencies. ...
- (5) The 'chain' method of compiling index-numbers. ...
- (6) The proposal of paper currency for the circulation (on the lines of Ricardo's *Proposals for an Economical and Secure Currency*) based on gold-and-silver symmetallism as the standard. ... (*ibid.*, pp. 191-3)

In 1926, two years after Marshall's death, Keynes edited a collection of Marshall's official papers that he regarded as important to monetary theory. A notable analysis, not emphasised by Keynes, was a tentative description of the money multiplier process contained in the 'minutes of evidence' for the 1887-8 Royal Commission on the Values of Gold and Silver:

The relation which the amount of bankers' money bears to the amount of currency has to be discussed as a part of a larger inquiry as to the influence which is exerted on prices by the methods of business; ... I should consider what part of its deposits a bank could lend, and then I should consider what part of its loans would be redeposited with it and with other banks and, *vice versa*, what part of the loans made by other banks would be received by it as deposits. Thus I should get a geometrical progression; the effect being that if each bank could lend two-thirds of its deposits, the total amount of loaning power got by the banks would amount to three times what it otherwise would be. If it could lend four-fifths, it will be five times; and so on. The question how large a part of its deposits a bank can lend depends in great measure on the extent on which the different banks directly or indirectly pool their reserves. But this reasoning, I think, has never been worked out in public, and it is very complex, and I should not wish to tender evidence upon the subject. (Marshall, 1926, p. 37)

The analysis, however, portrayed a process where deposits create loans. Schumpeter pinpoints the discovery of the correct causality, alongside an overview of the extent of the understanding of monetary processes at this time:

Nevertheless, it proved extraordinarily difficult for economists to recognize that bank loans and bank investments do create deposits. ... And even in 1930, when the large majority had been converted and accepted that doctrine as a matter of course, Keynes rightly felt it necessary to re-expound and to defend the doctrine at some length,

[footnotes a reference to Crick (1927)] and some of its most important aspects cannot be said to be fully understood even now. ... For the facts of credit creation – at least of credit creation in the form of banknotes – must all along have been familiar to every economist. Moreover, especially in America, people were freely using the term Check Currency and talking about banks’ ‘coining money’ and thereby trespassing upon the rights of Congress. Newcombe in 1885 gave an elementary description of the process by which deposits are created through lending. Towards the end of the period (1911) Fisher did likewise. He also emphasised the obvious truth that deposits and banknotes are fundamentally the same thing. And Hartley Withers espoused the notion that bankers were not middlemen but ‘manufacturers’ of money. ... [after MacLeod] came Wicksell, ... in the United States ... Davenport, Taylor and Phillips may serve as examples. But it was not until 1924 that the theoretical job was done completely in a book by [Albert] Hahn [*Volkswirtschaftliche Theorie des Bankkredits*], and even then the success was not immediate. Among English leaders credit is due primarily to Professors Robertson and Pigou ... (Schumpeter, 1954, pp. 1114-16)

Not only for Keynes, but also for many others, Marshall had re-envigorated the science of monetary theory.

Just as several of these contributions were published, Keynes had inherited Marshall’s teaching at Cambridge. Table 7.1 reproduces his schedule as compiled by Moggridge (CW XII, p. 689).

Table 7.1 Keynes’s early lectures

Money, Credit and Prices	1908/9-1909/10
The Stock Exchange and the Money Market	1909/10-1913/14
The Theory of Money	1910/11-1913/14
Company Finance and the Stock Exchange	1910/11-1912/13
Currency and Banking	1910/11-1913/14
The Currency and Finances of India	1910/11
Money Markets and Foreign Exchanges	1910/11-1912/13
Principles of Economics	1910/11-1913/14
The Monetary Affairs of India	1912/13

Extracts from Keynes's own notes for some of these courses are published in volume XII of *Collected Writings*. While these reproductions are very incomplete, sufficient detail is included to gain a relatively clear idea of his perspective. He builds a theory of prices based on the quantity theory of money, but a theory where the money term is understood as a consequence of credit creation and the transmission mechanism is of importance:

The use of the name, 'Quantity theory', however, has certainly tended to overemphasise the influence of supply as compared with that of demand;... The total exchange value of the money in circulation is *not independent* of the demand for money. (CW XII, pp. 693-4)

The level of prices depends, as we have seen, mainly upon the supply of gold, the volume of trade, and the system of banking and credit. (CW XII, pp. 703-4)

There is little in the published lecture notes detailing actual processes of credit creation and the supply and demand for money, although one brief extract illustrates a relatively sophisticated understanding of the processes involved:

The proportion of subsidiary currency to standard currency

Dependent upon:

- (1) the habits and tastes of the people
- (2) the development of banking
- (3) the degree of confidence felt in the subsidiary currency
- (4) the strength of the motive (chiefly on the part of financiers and bankers and sometimes on the part of Gov^t) to economise the use of standard currency

(1) This and (2) are in general the dominating influences, e.g. the use of the rupee in India; and the use of notes in Austria, in Brazil.

(2) The use of cheques turns partly on custom, but largely upon the spread of banking facilities, the number of bank branches and their willingness to take and manage small accounts without making charges.

General in English-speaking countries – England, Canada, Australia, U.S.A., S. Africa.

Notes, on the other hand, usual in Russia, Germany and Latin countries.

Metal in oriental countries

I shall deal more fully with this when I come to systems of currency and systems of credit and gold reserves. (CW XII, p. 757)

It was with this background that Keynes was to make his contributions to economics. In his 1912 lectures he looked to a possible fourth grand discussion that he was to drive and ultimately to dominate:

We may possibly be on the brink of a fourth grand discussion. The recent rise of prices has caused discontent and embarrassed governments in many parts of the world. Several are at the moment conducting investigations into the recent rise in the cost of living; and a project of an International Commission of Enquiry has been launched. (CW XII, p. 773)

In retrospect, Skidelsky (1992, p. 169) concurs and argues that the “First World War can be seen as introducing the fourth great monetary discussion”. He does not, however, specify the nature of this discussion: the fourth grand monetary discussion concerned the demise of the gold standard. Key developments were the changing role of gold in India, the widespread suspension of internal standards during W.W. I, the hardship of the 1920s when gold was re-instated in Britain and then the world-wide great depression itself. Keynes gradually built the most forceful and intellectually cogent case against gold and the financial establishment that the world had seen before or has seen since. In this way the development of his theory echoed his own 1914 historical observation: “There have been in the last hundred years three principal crises in the history of currency; and the main developments of monetary theory have been in connection with these” (XII, p. 772). Schumpeter too observed this connection: “ONCE MORE the bulk of the vast literature on money and related subjects, which the period under survey produced, grew out of the discussions of current problems” (Schumpeter, 1954, p.1074).

7.5 Keynes as a monetary reformer

Keynes’s early written work constituted mainly applications of monetary theory to current practical policy; his own theoretical contributions were limited to a running commentary on the fast developing science of monetary theory (in review

articles in the *Economic Journal*, which he edited from 1911). The dominant monetary issue was the developments in India in the wake of the bimetallist controversy. In 1893 India suspended its silver standard and set in motion a policy of what Keynes would later refer to and advocate as 'currency management':

In the course of the 1890s, ... the Government pegged the rupee to gold and left a token silver and paper currency in circulation. ... the main method used by the Government of India to peg the exchanges was the maintenance of sterling balances in London, which rose or fell as the authorities sold or purchased rupees for sterling to keep the rupee exchange rate within the gold points. (Moggridge, 1992, pp. 201-2)

Keynes recognised the importance of these developments as the first substantial manifestation of a *gold exchange standard* system. The rupee was not convertible to gold internally, but was convertible into other currencies at a fixed exchange rate in terms of gold. The exchange rate was maintained by the arrangements described by Moggridge (above). Fundamentally, these arrangements did not involve the manipulation of interest rates. Keynes's important contributions to economics, therefore, began on this theme. His first major *Economic Journal* article, 'Recent Economic Events in India', was published in March 1909 (CW XI, pp. 1-22). He also began a lifelong correspondence with national newspapers, at the same time making his ideas accessible as well as widely known. A year later (May 1910), he gave a series of six lectures to the London School of Economics that would become his first book: *Indian Currency and Finance*. He set out his basic position in a summary paper read to the Royal Economic Society on 9 May 1911:

I will endeavour to give reasons for thinking that this existing system, to which the name of gold-exchange standard has been given, is something much more civilised, much more economical, and much more satisfactory than a gold currency. I should like to see it openly established in India on a permanent basis and all talk of an eventual gold currency definitely abandoned. (CW XV, p. 69)¹⁴

¹⁴ In terms of official policy he noted "[t]he Committee of 1898 declared themselves to be in favour of the ultimate establishment of a full gold standard. Since that time this intention has never

Indian Currency and Finance set the developments in India in the context of the history of the gold standard. As the centre of global finance, he gave front place to England:

The history of currency, so far as it is relevant to our present purpose, virtually begins with the nineteenth century. During the second quarter of this century England was alone in possessing an orthodox 'sound' currency on a gold basis. Gold was the sole standard of value; it circulated freely from hand to hand; and it was freely available for export. Up to 1844 bank notes showed a tendency to become a formidable rival to gold as the actual medium of exchange. But the Bank Act of that year set itself to hamper this tendency and to encourage the use of gold as the medium of exchange as well as the standard of value. This Act was completely successful in stopping attempts to economise gold by the use of notes. But the Bank Act did nothing to hinder the use of cheques, and the very remarkable development of this medium of exchange during the next fifty years led in this country, without any important development in the use of notes or tokens, to a monetary organisation more perfectly adapted for the economy of gold than any which exists elsewhere. ... With the growth of the stability of banking, and especially the growth of confidence in this stability amongst depositors, these occasions [bank runs] have become more and more infrequent ... Gold Reserves, therefore, in Great Britain are no longer held primarily with a view to emergencies of this kind. The uses of gold coin in Great Britain are now three – as the medium of exchange for certain kinds of out-of-pocket expenditure, such as that on railway travelling, for which custom requires cash payment; for the payment of wages; and to meet a drain of specie abroad. (CW I, pp. 11-12)

His point was that England thrived *in spite of* the gold standard – because financial developments, in particular the use of cheques, meant that restrictions (i.e. the requirement to be able to convert currency into gold) did not bite. On the other hand, other countries had not seen such evolutions and there the gold standard would not be so harmless:

But foreign observers seem to have been more impressed by the fact that the Englishman had sovereigns in his pocket than by the fact he had a cheque-book in his desk; and took more notice of the 'efficacy' of the

been repudiated, so far as I am aware, by Government, and speeches have been made by its officers implying that it is still maintained" (CW XV, p. 68).

bank rate and of the deliberations of the court of directors on Thursdays, than of the peculiar organisation of the brokers and the London money market, and of Great Britain's position as a creditor nation. (CW I, p. 14)

He later characterised the diminution of the role of gold around the world, in particular in those countries that were commonly identified with the gold standard:

In Germany the policy of 1876 has been deliberately reversed by a recent revision of the Bank Act, and 20-mark notes are now issued with the deliberate object of keeping as much gold as possible in the bank and wasting as little as possible in circulation. This new policy is likely to be extended in the future. ...

In other countries, where actual currency is the principal medium of exchange, the attempt to introduce gold as the medium passing from hand to hand has been for the most part abandoned. A great part of the new gold has flowed, during the last ten years, into the reserves of the state banks, and a comparatively small amount only can have found its way into circulation. In Austria-Hungary, for example, after the currency reform of 1892, attempts were made to force gold into circulation just as they were in India. They luckily failed. ... The same kind of thing occurred in Russia. After establishing with difficulty a gold standard, they began with the theory, and have since abandoned it, that a gold currency was the natural corollary. Other examples could be given. A gold standard is the rule now in all parts of the world; but a gold currency is the exception. The 'sound currency' maxims of twenty or thirty years ago are still often repeated, but they have not been successful, nor ought they to have been, in actually influencing affairs. (CW I, pp. 49-50)¹⁵

Ultimately, he supported the role of gold as "an international, but not a local currency" (CW I, p. 21), dismissing the local role in clear terms:

It is not likely that we shall leave permanently the most intimate adjustments of our economic organism at the mercy of a lucky prospector, a new chemical process, or a change of ideas in Asia. (CW I, p. 71)

Let the Indian public learn that it is extravagant to use gold as a medium of exchange, foolish to lessen the utility of their reserves through suspicion of the London money market, and highly advantageous to their

¹⁵ The terminology in Keynes's discussion here is confusing, as he uses gold standard to mean gold exchange standard and gold currency to mean gold standard.

own trade and to the resources of their own money market to develop the use of notes; and their financial system may soon become wonderfully well adapted to the particular circumstances of their situation. (CW I, pp. 136-7)

Even at this time, Keynes was regarded as an expert in these matters. In 1913, just as he was finalising his book for publication, he was invited to be the secretary of the Royal Commission on Indian Currency and Finance. Elizabeth Johnson, the editor of the early volumes of Keynes's *Collected Writings*, sums up the final report as follows: "The Report was a vindication of the gold-exchange standard system; it left no doubt that in the minds of the commissioners the much-urged adoption of a gold currency would not serve the best interests of India" (CW XV, p. 269). Although this was no small triumph for the 30-year-old Keynes, it was short-lived. "The war of 1914-18 put to one side all the Commission's recommendations" (CW XV, p. 151).

While W.W.I brought an abrupt halt to monetary progress in India, it led to developments to British monetary policy that were in accordance with Keynes's views. With a senior role in HM Treasury, Keynes was involved in these developments. Domestically, Britain (as well as other countries) suspended the internal gold standard, and external policy turned to exchange management. From 1915, J.P. Morgan was instructed to buy and sell sterling in order to preserve an exchange rate of \$4.76.¹⁶ Keynes attached immense importance to the preservation of this parity as the cornerstone of allied finance for the duration of the war.

At the end of the war, Keynes was put in charge of financial issues for the Versailles peace conference. This role appears to have put him in the background for the British monetary policy developments at this time: the unpegging of the dollar exchange value of sterling and the introduction of an embargo on gold exports (respectively, 20 March and 1 April 1919, no commentary by Keynes is recorded on either event). His official involvement in *any* policy developments ended completely with his resignation at the end of the Versailles Conference in

June 1919. From then until the start of W.W.II he became an observer of events and a powerful agitator for fuller reform.

Throughout history, post-war policy agendas have been dominated by financial policy. The Versailles Conference enabled conferences at Brussels and Genoa which set in motion a movement towards an international gold standard.¹⁷ In line with his position before the war, Keynes initially supported the use of gold in exchange transactions but not for internal policy. As time went by, he cooled to the use of gold in nearly all capacities.

On 11 December 1923 he published his own opinions on these profoundly important policy issues as *A Tract on Monetary Reform*.¹⁸ Two days after publication he set out his position in a speech to the Liberal Club that has substantial relevance as a general statement of his lifetime policy perspective:

To begin with a few words about what should be the attitude of Liberalism towards social policy.

We are traditionally the party of *laissez-faire*.

But just as the economists led the party into this policy, so I hope they may lead them out again.

It is not true that individuals acting separately in their own economic interest always produce the best results.

It is obvious that an individualist society left to itself does not work well or even tolerably.

Here I agree with Labour.

I differ from them not in the desirability of state action in the common interest, but as to the forms which such interference should take. Their proposals are out of date and contrary to human nature.

But it is not safe or right just to leave things alone.

It is our duty to think out wise controls and workable interferences.

Now there is no part of our economic system which works so badly as our monetary and credit arrangements; none where the results of bad working are so disastrous socially; and none where it is easier to propose a scientific solution. (CW XIX, Vol. I, pp. 158-9)

¹⁶ A devaluation from the pre-war level of \$4.86.

¹⁷ Although opinions appeared to differ whether this was the full internal gold standard as preferred by the Bank of England and as later implemented in Britain or a gold exchange standard as implied by resolutions of the conferences.

¹⁸ Much of the material was re-working of articles that had been published in 'Reconstruction Supplements' of the *Manchester Guardian Commercial*, mainly in April 1922.

A Tract on Monetary Reform set out a fuller agenda for domestic and international monetary policy in the light of monetary developments before, during and after the war. The Preface set out this challenge for Monetary Reform:

We leave saving to the private investor, and we encourage him to place his savings mainly in titles to money. We leave the responsibility for setting production in motion to the business man, who is mainly influenced by the profits which he expects to accrue to himself in terms of money. Those who are not in favour of drastic changes in the existing organisation of society believe that these arrangements, being in accord with human nature, have great advantages. But they cannot work properly if the money, which they assume as a stable measuring-rod, is undependable. Unemployment, the precarious life of the worker, the disappointment of expectation, the sudden loss of savings, the excessive windfalls to individuals, the speculator, the profiteer – all proceed, in large measure, from the instability of the standard of value.

It is often supposed that the costs of production are threefold, corresponding to the rewards of labour, enterprise, and accumulation. But there is a fourth cost, namely risk; and the reward of risk-bearing is one of the heaviest, and perhaps the most avoidable, burden on production. This element of risk is greatly aggravated by the instability of the standard of value. Currency reforms, which led to the adoption by this country and the world at large of sound monetary principles, would diminish the wastes of *risk*, which consume at present too much of our estate.

Nowhere do conservative notions consider themselves more in place than in currency; yet nowhere is the need of innovation more urgent. One is often warned that a scientific treatment of currency questions is impossible because the banking world is intellectually incapable of understanding its own problems. If this is true, the order of society, which they stand for, will decay. But I do not believe it. What we have lacked is a clear analysis of the real facts, rather than ability to understand an analysis already given. If the new ideas, now developing in many quarters, are sound and right, I do not doubt that sooner or later they will prevail. I dedicate this book, humbly and without permission, to the Governors and Court of the Bank of England, who now and for the future have a much more difficult and anxious task entrusted to them than in former days. (CW IV, pp. xiv-xv)

After a discussion of the “evil consequences of instability in the standard of value” (CW IV, p. 61) and an examination of exchange rate theory and developments, he turned to policy. In doing so, he emphasised that the position he was setting out bore a similarity to systems that were already developing in an

informal and *ad hoc* manner: "...a good constructive scheme can be supplied merely by a development of our existing arrangements on more deliberate and self-conscious lines" (CW IV, p. 147).

He dismissed the use of gold as internal standard in no uncertain terms:

Those who advocate the return to a gold standard do not always appreciate along what different lines our actual practice has been drifting. If we restore the gold standard, are we to return also to the pre-war conceptions of bank rate, allowing the tides of gold to play what tricks they like with the internal price level, and abandoning the attempt to moderate the disastrous influence of the credit cycle on the stability of prices and employment? Or are we to continue to develop the experimental innovations of our present policy, ignoring the 'bank ratio' and, if necessary, allowing unmoved a piling up of gold reserves far beyond our requirements or their depletion far below them?

In truth, the gold standard is already a barbarous relic. All of us, from the Governor of the Bank of England downwards, are now primarily interested in preserving the stability of business, prices, and employment, and are not likely, when the choice is forced on us, deliberately to sacrifice these to the outworn dogma, which had its value once, of £3.17s 10½d per ounce. Advocates of the ancient standard do not observe how remote it now is from the spirit and the requirements of the age. A regulated non-metallic standard has slipped in unnoticed. *It exists*. Whilst the economists dozed, the academic dream of a hundred years, doffing its cap and gown, clad in paper rags, has crept into the real world by means of bad fairies – always so much more potent than the good – the wicked ministers of finance. (CW IV, pp. 137-8)

Instead, for internal policy, he advocated the use of *credit control*: "Thus the tendency of today – rightly I think – is to watch and to control the creation of credit and to let the creation of currency follow suit, rather than, as formerly, to watch and to control the creation of currency and to let the creation of credit follow suit" (CW IV, p. 146). Implicit in this statement and explicit elsewhere in his book was the ability of the authorities to effect this control: "In my opinion the control, if they choose to exercise it, is mainly in their own hands" (CW IV, p. 144). Cash would, as a consequence, be disengaged from gold:

The volume of the paper money, on the other hand, would be consequential, as it is at present, on the state of trade and employment,

bank-rate policy and the Treasury bill policy. The governors of the system would be bank-rate and Treasury bill policy, the objects of government would be stability of trade, prices, and employment, and the volume of paper money would be a consequence of the first (just – I repeat – as it is at present) and an instrument of the second, the precise arithmetical level of which could not and need not be predicted. (CW IV, pp. 153-4)

He then looked to exchange management. By this time he had moved away from the use of gold as an international currency, partly because of distrusting the United States who would dominate the situation as the largest creditor in the world. He continued to see ~~saw~~ great advantage in the stability of exchanges, but not at the expense of the stability of prices: 8

Our object must be to secure this advantage, if we can, without committing ourselves to follow big movements in the value of gold itself. I believe that we can go a long way in this direction if the Bank of England will take over the duty of regulating the price of gold, just as it already regulates the rate of discount. 'Regulate', but not 'peg'. The Bank of England should have a buying and a selling price for gold, just as it did before the war, and this price might remain unchanged for considerable periods, just as bank rate does. (CW IV, pp. 149-50)

The international picture was completed as a world of currency management, with the United States adopting the same arrangements as the UK; "other countries" would then base their currencies on sterling or the dollar:

Their wisest course would be to base their currencies either on sterling or on dollars by means of an exchange standard, fixing their exchanges in terms of one or the other (though preserving, perhaps, a discretion to vary in the event of a serious divergence between sterling and dollars), and maintaining stability by holding reserves of gold at home and balances in London and New York to meet short-period fluctuations, and by using bank rate and other methods to regulate the volume of purchasing power, and thus to maintain stability of relative price level, over longer periods. (CW IV, pp. 159-60)

The role of gold for all countries would thus be as an international reserve. He saw these developments as inevitable: "[a]nd – most important of all – in the modern world of paper currency and bank credit there is no escape from a

‘managed’ currency, whether we wish it or not; ...” (CW IV, p. 136). Just as bank money required domestic control, it also required international control. In the same way, the agenda of the Cunliffe Committee and other supporters of the gold standard was long dead: “The Cunliffe Report belongs to an extinct and an almost forgotten order of ideas. Few think on these lines now; yet the Report remains the authorised declaration of our policy, and the Bank of England and the Treasury are said still to regard it as their marching orders” (CW IV, p. 153).

The sureness of his analysis and optimism of his discussion were quickly shattered. Between January and December 1924 the Labour Party were in government for the first time in British history. One of their first acts, on 18 February 1924, was to announce their intention to return to gold as recommended by the Cunliffe Committee. Despite a change of government, on 28 April 1925 Winston Churchill took Britain back on a full internal gold standard. Notes would be exchangeable for gold according to the historic rate of £3 17s 10 ½d per ounce.

With every argument he had put since 1909 effectively ignored or dismissed, Keynes retreated to write his *Treatise on Money*. When he wrote the Preface to the foreign edition of this new work (5 April 1932), the folly of the gold standard was clear to nearly all:

Since the publication of the English edition of my book in the autumn of 1930, sensational events have occurred in the world of affairs. The historic gold standard, which had been restored after the war at such heavy pains and costs, has been broken into fragments, and it is unlikely that it will ever be put together again in the old mould. When I wrote my book I was far from optimistic, but thought it right to pay due deference to the *de facto* arrangements of the world. I felt that the leading central banks would never voluntarily relinquish the then existing forms of the gold standard; and I did not desire a catastrophe sufficiently violent to shake them off voluntarily. (CW V, p. xx)

Seven years after the British return to gold, the world started to follow his advice. With Britain in the lead, countries began to adopt exchange management (as detailed in section 2.3).

7.6 The development of Keynes's theory to the *Treatise*

While the *Treatise* did develop Keynes's policy proposals from the position set out in the *Tract*, it was more important as the start of his substantial theoretical analysis. Keynes at last recognised that his policy initiatives lacked theoretical justification: "The new book on Monetary Theory which I have in preparation will, I am hopeful, throw much new light on my fundamental arguments in favour of the dogmas to which I have rashly given utterance without sufficiently substantiating them".¹⁹

Up to the *Treatise*, Keynes's contributions had been limited to a commentary on the development of monetary theory and an articulation of policy consequence. This work showed him to be Marshall's true successor in two fundamental ways. First, he dedicated himself to pursuing the monetary theories and practical application that he considered Marshall had begun to open up. Second, as emphasised in Chapter 6, while giving front place to these monetary developments, Keynes remained wedded to an underlying Marshallian or classical world (long period).

Both of these perspectives are illustrated by his commentaries in the 1910s. One of his earliest contributions was a review of Irving Fisher's *The Purchasing Power of Money* (1911). In part Keynes gave high praise for the articulation of the processes of credit that he considered had only been expressed orally in England.

¹⁹ Skidelsky (1992, p. 164); he gives the reference: "KP: NS/1/1. JMK to Prof. Kurt Singer, 23 April 1925". The item is not included in *Collected Writings*.

However Keynes did not shirk criticism and controversy, and looked to a fuller treatment of the transmission mechanism between credit and prices:

Professor Fisher's book is marked, as all his books are, by extreme lucidity and brilliance of statement. It is original, suggestive, and, on the whole, accurate; and it supplies a better exposition of monetary theory than is available elsewhere. ...

The most serious defect in Professor Fisher's doctrine is to be found in his account of the mode by which through transitional stages an influx of new money affects prices. The following is an abbreviated account (in his own words, though the italics are mine) of the theory which he presents in Chapter IV: – Let us begin by assuming a slight initial disturbance such as would be produced by an increase in the quantity of gold. *This, through the equation of exchange, will cause a rise in prices.* ... Professor Fisher ... is content with showing by the quantity theory that the new gold *must* raise [prices] somehow. (CW XI, pp. 376-7)

On the other hand, Keynes was abruptly dismissive of those such as John Hobson and A. Mitchell Innes who claimed the powers of money altered fundamental classical 'truths':

One comes to a new book by Mr Hobson with mixed feelings, in hope of stimulating ideas and of some fruitful criticisms of orthodoxy from an independent and individual standpoint, but expectant also of much sophistry, misunderstanding, and perverse thought. In some of his books the first elements greatly predominate. In his latest work now before us [*Gold, Prices, and Wages*, 1913, London, Methuen], the latter prevail almost throughout. (CW XI, p. 388)²⁰

In his theory of money the author of this pamphlet^[21] is a follower of H. D. McLeod. The fallacy – if I am right in thinking that this theory of the effect of credit *is* a fallacy – is a familiar one, and it will not be worthwhile to discuss it in this review. (CW XI, p. 404)

The *Tract* was a practical work and proposals were justified in the context of an analysis of the undesirable effects of price stability. Very much like today, it saw the cycle as inevitable, albeit driven by credit, to be at best mitigated by an appropriate monetary policy. The theoretical substance constituted mainly a re-

²⁰ Later the *General Theory* would contain a substantial tribute to Hobson and other monetary 'heretics'.

²¹ 'What is Money?' (1913) *Banking Law Journal*, New York.

statement of the quantity theory in the light of credit creation. After publication, Keynes succinctly summed up the crucial points of his argument in a rejoinder to a critique by the LSE economist Edwin Cannan (1924):

Let me repeat the quantity equation in the form in which I stated it in *A Tract on Monetary Reform* (p. 77 [CW IV, p. 63]):

$$n = p(k + rk')$$

where n = number of units of 'cash' in circulation (defined on p. 83 [CW IV, p. 67] as being, in the case of Great Britain, 'note circulation *plus* private deposits at the Bank of England').

- p = price of each 'consumption unit', or in other words the index number of prices.
- k = number of consumption units, the monetary equivalent of which the public find it convenient to keep in 'cash'.
- k' = ditto which the public find it convenient to keep in bank balances available against cheques.
- r = the proportion of their potential liabilities (k') to the public which the banks keep in 'cash'.

Now, the old-fashioned doctrine used to be that if n could be kept reasonably steady, all would be well. My object was to point out that if k and k' were capable of violent fluctuation, steadiness of n might be positively harmful and must be reflected in an extreme unsteadiness of p , – this being, in fact, what has generally happened in booms and depressions of trade. (CW XI, p. 416)

From the theoretical perspective, the *Tract* took the existence of credit and the credit cycle as a prior. The *Treatise* then took a step back and sought to explain and formalise both of these priors. The first book contained a detailed and precise analysis of the evolution and natures of money through time. In particular he discussed in some detail the existence and implications of the evolution from commodity to bank money; he also defined the latter more fully as 'representative money'.²² In the light of his new terminology, he then offers the following unambiguous statement of the intent and perspective of his economics:

This Act [Bank Act 1844] was compounded of one sound principle and one serious confusion. The sound principle consisted in the stress laid on

²² Essentially, bank money is representative money if/when the State "undertakes to accept in payments to itself or to exchange for compulsory legal-tender money" (CW V, p. 6).

the limitation of the quantity of the representative money as a means of ensuring the maintenance of the standard [“whatever that standard might be”, p. 14]. The confusion lay in the futile attempt to ignore the existence of bank money and consequently the inter-relationships of money and bank credit, and to make representative money behave exactly as though it were commodity money. (CW V, p. 15)

Keynes’s aim was to build a model of a representative money economy and to use this theory to draw appropriate practical conclusions for macroeconomic management. In terms of the actual theoretical scheme, Keynes argued that the role of credit and the banking system was the determination of investment: “By the scale and the terms on which it is prepared to grant loans, the banking system is in a position, under a regime of representative money, to determine – broadly speaking – the rate of investment by the business world” (CW V, p. 138). In this way, the short-period outcome of an economy depended on monetary policy. The underlying or long-period Marshallian world was underpinned by a natural rate of interest (that he attributed to Wicksell): “Thus the natural rate of interest is the rate at which saving and the value of investment are exactly balanced, so that the price level of output as a whole (II) exactly corresponds to the money rate of the efficiency earnings of the factors of production” (CW V, p. 139). The key processes underpinning the credit cycle were then the behaviour of saving and investment:

Thus, the long-period or equilibrium norm of the purchasing power of money is given by the money rate of efficiency earnings of the factors of production; whilst the actual purchasing power oscillates below or above this equilibrium level according as the cost of current investment is running ahead of, or falling behind, savings. (CW V, p. 137)

Even as the book was published, this was all about to change.

7.7 The *General Theory* of monetary economics

With the *GTOEIM*, Keynes moved decisively away from Marshall’s world to the multiple equilibrium system that was his critical, yet to some extent still

unrecognised, contribution to economics. A fuller description of this model of activity in the real economy waits until Chapter 10. But, from the monetary perspective, the fundamental innovation of the new theory was the liquidity preference theory of interest. Here Keynes shifted the emphasis of monetary theory from analyses of credit or exchange (flows), to the theory of money as a store of value (stocks). As Schumpeter later put it: "It was gradually realized that these two functions are separable and that their theories are different" (1954, p. 297).

Yet, ludicrously, the *General Theory* is regarded as a retrograde step in monetary analysis. This has partial roots in Keynesianism, where an exogenous supply of money is implicit in the simultaneous equation system. But Schumpeter himself fostered this view explicitly:

There is, however, a sequel to Lord Keynes's treatment of the subject of credit creation in the *Treatise* of 1930 of which it is necessary to take notice in passing. The deposit-creating bank loan and its role in the financing of investment *without any previous saving up of the sums thus lent* have practically disappeared in the analytical schema of the *General Theory*, where it is again the saving public that holds the scene. Orthodox Keynesianism has in fact reverted to the old view according to which the central facts about the money market are analytically rendered by means of the public's propensity to save coupled with its liquidity preference. I cannot do more than advert to this fact. Whether this spells progress or retrogression, every economist must decide for himself. (Schumpeter, 1954, pp. 1114-5)

The reality is that the *General Theory* was the culmination of Keynes's search for a theory of a representative-money economy – what he now called a 'monetary theory of production'. A statement of intent written in late 1932 for a *Festschrift* seems unambiguous:

The theory which I would desiderate would deal, in contradistinction to this, with an economy in which money plays a part of its own and affects motives and decisions and is, in short, one of the operative factors in the situation, so that the course of events cannot be predicted, either in the long period or in the short, without a knowledge of the behaviour of money between the first state and the last. And it is this which we ought to

mean when we speak of a *monetary economy*. (CW, XIII, pp. 408-9, Keynes's emphasis).

What has perhaps caused confusion is the change in the priority of credit. With the emphasis on the theory of money as an *asset*, the existence and role of credit money was put to one side. It is however an error – an astonishing error and a great insult that to my mind accuses Keynes of imbecility – to think that credit had been forgotten. Keynes discussed the point in the *General Theory*, although perhaps not as clearly as he might have. In the Preface to the British edition (CW VII, p. xxi), he outlines “the relation between this book and my *Treatise on Money*”. The contrasting roles of money are addressed as follows: “... whilst it is found that money enters into the economic scheme in an essential and peculiar manner, technical monetary detail falls into the background” (CW VII, p. xxii). While the shift in emphasis from means of exchange to store of value is not mentioned, this text certainly does not amount to a rejection of his earlier position that the existence of credit creation has profound implications for economic activity.²³ More importantly, as will be obvious from Chapter 10, his theory of aggregate demand *requires* a supply of credit that responds to effective demand. Under this theory, demand is determined by the interaction of the marginal efficiency of capital (*mec*), the rate of interest and the marginal propensity to consume. Credit is assumed to be generated to meet any demand for borrowing on the part of business not already met from the existing stock of money.

However, this is not to say that Keynes's treatment is comprehensive. In giving emphasis to liquidity preference, he did not state his assumptions about credit creation or tackle what would happen if they did not hold. From our own vantage-point this is clearly problematic, perhaps disastrous. We must remember, though, that Keynes was writing for an economics profession who, with very few exceptions, recognised the role of credit in economic activity. The true state of affairs is surely that he considered he could take the existence of bank credit as a

²³ Davidson has made a similar point: “Since these technical details have been dealt with at great length in his *Treatise*, Keynes' willingness to suppress these complications to make this point is understandable, although from hindsight it is regrettable” (Davidson, 1978, p. 49).

matter of course, understood by all, and detailed in his own earlier works for those who were interested. Furthermore he began to address these shortcomings in the post-publication debates with Dennis Robertson and Bertil Ohlin that will be discussed in Chapter 9.

No matter how important this issue has turned out to be, in reality, it is a side issue that has detracted from a truly great innovation of the *General Theory*. Keynes's treatment of the role of money as an asset through the theory of liquidity preference might be regarded as the second great innovation of monetary theory, following the first as the identification and treatment of credit creation. Monetary theory comprises a theory of exchange based on the analysis of representative money and a theory of money as a store of value based on liquidity preference.

From the theoretical perspective, Keynes's *General Theory* was the culmination of the fourth grand discussion (as Skidelsky, 1992, p. 169, also observed). From the practical perspective, Keynes's victory was complete in 1937. The gold standard had been abandoned and a managed currency had been introduced over much of the world.

7.8 Modern monetary debate

The triumph of monetary theory was short-lived. With Keynes's death in 1946 and the seamless shift towards *IS-LM*, the monetary theory of the inter-war years was all but forgotten. As Davidson (1978, footnote 23) has emphasised, money was "unimportant" in these Keynesian models. The British Radcliffe Committee's *Report* (Committee on the Working of the Monetary System 1959) may have marked a return to more sophisticated thought about money, but it inspired scholars working on the margins of economics. 'Monetarism' was only a re-packaging of classical economics: it was a real theory masquerading as a monetary theory. The confusion and farce is plain to see; a theory that pretended

to be a monetary theory ousted a theory that wasn't a monetary theory that claimed to represent a theory that was a monetary theory.

Modern monetary economics is commonly regarded as emerging in a substantial form with post-Keynesian economics. From the theory-of-exchange perspective, the critical contribution is regarded as Kaldor's rejection of monetarism on the grounds that money was 'endogenous'. His argument is set out most fully in *The Scourge of Monetarism*; this book is a collection of two items: first, his two 'Radcliffe Lectures' (originally delivered in 1981), and second, a long paper that he submitted to the Treasury and Civil Service Committee (TCSC) in July 1980. In the latter, his basic contention was as follows:

[monetarists] assume that there is *no* important difference between the functioning of a commodity-money economy and a credit-money economy ... (Kaldor, 1986, p. 45)

... the 'money supply' in a credit-money economy is *endogenous*, not *exogenous* – it varies in direct response to changes in the public 'demand' to hold cash and bank deposits and not independently of that demand. (*ibid.*, p. 47)

The policy implication was that acting according to monetarist doctrine in a monetary economy was incorrect in exactly the same way that acting according to the gold standard was incorrect; Kaldor made the case that Keynes had made for credit rather than currency control sixty years previously. Despite this substantial (but not mentioned) parallel, Kaldor's wider argument was profoundly detrimental to a fuller understanding of Keynes that was now up in the air given the rejection of *IS-LM*. First, the same TCSC paper went on to ascribe a monetarist position to Keynes with regard to the supply of money:

71. Keynes himself never really questioned the assumption that the *supply of money*, however defined, is exogenously determined by the monetary authorities. At least his equations (whether those in *Treatise on Money* published in 1930, or in the *General Theory* of 1936) are not consistent with any other interpretation.

[elaborating in a footnote:] The equation $M = L_1(Y) + L_2(r)$ which appears in Keynes's *The General Theory of Employment, Interest and Money*

(London, 1936, p. 199), but which could more simply be written $M = L(Y, r)$, assumes M as exogenously given. (Kaldor, 1986, p. 73)

Second, as will be discussed in Chapter 9, he then explicitly rejected any role for liquidity preference:

‘Liquidity preference’ turns out to have been a bit of a red herring – not the ‘crucial factor’ which, in the view of the great economists of Keynes’s generation, such as Dennis Robertson or Jacob Viner, and, of a later generation, Harry Johnson or James Tobin, alone enabled Keynes to argue that an economy can be in equilibrium at less than full employment. It has nothing to do with that at all. (Kaldor, 1986, p. 26)

Kaldor’s arguments have been taken up by Basil Moore; he has perpetrated almost exactly the same position and continues to stand in the way of a fuller appreciation of Keynes’s monetary economics.^{24,25}

Of modern monetary economists, Chick and Dow support the position I have attributed to Keynes. They have argued that Keynes took credit creation as ‘given’ (e.g. Chick, 1983, p. 184 and 2001, p. 9, and Dow, 1997). Keynes made the assumption that sufficient bank money had been created to support whatever level of economic activity had been dictated by the theory of effective demand (Chick, 2000).

Those who explicitly charge that Keynes took money as exogenous are grossly misrepresenting his whole economics. Furthermore, the extensive post-Keynesian debate between ‘horizontalists’ and ‘verticalists’ is, in my view, a side issue. It is revealed as such as soon as it recognised that the aim of Keynes’s theory is to

²⁴ For example: “After reading these passages in the *Treatise*, where the endogeneity of credit money is so clearly recognized, it is difficult to understand how Keynes only six years later could have assumed the money stock to be exogenously determined by the monetary authorities” (Moore, 1988, p. 195). A footnote to the passage continues on the same theme: “Or how he could have approved of Hicks’s IS-LM formulation of the *General Theory*”. While saying the change in position is ‘difficult to understand’, Moore does not go on to look for any explanation. Given Moore’s own theoretical argument is based on the paramount importance of credit, some sort of explanation for Keynes’s alleged stupidity is surely a necessary element of a serious study.

²⁵ Moore’s fuller argument in Jarsulic’s (1984) *Money and Macro Policy* is virtually identical to that used by Kaldor – compare Moore (1984, pp. 3-4) with Kaldor’s second 1981 Radcliffe lecture (reproduced in Kaldor, 1986, pp. 20-22).

demonstrate that interest rates, long and short, can be set. In broader terms, in the *General Theory* the quantity of bank money was primarily a consequence of the rate of interest, not a cause. The important issue is the compatibility between the theories of liquidity preference and of endogenous money. This challenge has been taken up by only a few post-Keynesians: Bibow, Chick and Dow.²⁶

Even despite their initiatives, there remains an almost universal ignorance about the monetary nature of Keynes's own economics. This may be a reflection of the more general attitude of academic economics to economic history. While each of the grand discussions saw a clash between monetary and real theories, the triumph of real theory in policy terms appears to have justified a triumph in academic terms. Furthermore, the nature of the academic triumph is such that it dismisses the *existence* of the monetary point of view. Schumpeter may make grand play of the real *versus* monetary debate, but the truth is that students are not presented with matters according to this fundamental division. Students are presented only with the real view of the world. Even Keynes himself appears to have been affected by this phenomenon, with Schumpeter noting that his eagerness to give Marshall priority was misplaced ("In some points the large claims made by this disciple on behalf of the originality and priority of the master must certainly be discounted", Schumpeter, 1954, p. 1083). While Keynes appreciated the contributions of other monetary theorists in the context of his Grand Discussions, he does not look back as far as the monetary contributions of John Law or even Adam Smith.

Today the importance of monetary theory is recognised by only a minority of economists. Keynes's role in the development of monetary theory and his associated practical initiatives are recognised by even fewer economists. Until this underlying nature of his economics is fully recognised, we miss the 'very ground floor of his analytic structure' and there can be no hope of a complete understanding of his work and its policy implications.

²⁶ See for example Dow (1997), Chick (2001), Chick and Dow (2002) and Bibow (2000).

Appendix 7.1

Interest Rates in History

In his *A History of Interest Rates*, Sidney Homer (1963)¹ offers five millennia of monetary history:

Students of history may see mirrored in the charts and tables of interest rates over long periods the rise and fall of nations and civilisations, the exertions and the tragedies of war, and the enjoyments and the abuses of peace. They may be able to trace in these fluctuations the progress of knowledge and of technology, the successes or failures of political forms, the long, hard, and never-ending struggle of democracy with the rule of the elite, the difference between law imposed and law accepted. (p. 3)

In my view the book provides unambiguous evidence that (i) historically, centres of prosperity have followed the development of banking; and (ii) the development of banking has been accompanied by low interest rates. Such empirics do not prove cause and effect. One is perfectly at liberty to propose that the cause is prosperity and low interest rates are the effect. Homer himself, though his concern is primarily the construction of historical record rather than analysis of cause and effect, appears content to take this view. But one is then compelled to find a *real* reason for this historical trajectory of prosperity. On the other hand, the monetary theory asserted in this thesis, that the effect is prosperity and the cause is the control of interest that banking permits, *is* sufficient as well as supported by the empirics.

Ancient civilisations in Sumer, Greece and Rome left detailed records of interest rates that can, in each case, be characterised as falling steadily to a low point (respectively ten, six and four per cent), holding that low point, and then rising through to the end of the age. Darker ages left no records of interest rates. If the broader proposition that prosperity and civilisation go hand in hand with control of interest then we might expect a lack of evidence base. Homer leaves behind the dark ages to join 'Medieval and Renaissance Europe' as follows: "Western European interest rates, when in medieval times they finally again emerge from centuries of darkness, were higher than the highest of the late Greek and Roman rates and very much higher than simultaneous Byzantine interest rate limits" (p. 65).

Taking a more formal starting point as the thirteenth century, we see unambiguously the blossoming of banking and the control of interest first in Italy, then in the Netherlands and then Britain. After a discussion of the development of banking and bills of exchange centred in thirteenth to fifteenth century Genoa and

¹ All references in this annex are to the 1963 first edition of Homer's work; it is still in print today.

Florence (and the Medicis) he looks ahead: "In the sixteenth century, Lyons and Antwerp developed as financial centres. ... In the seventeenth century, Amsterdam assumed much of the leadership ... It was not until the eighteenth century that London became a dominant financial centre" (p. 78).

His record of interest rates after the dark ages begins with the twelfth century, where English rates of between 40 and 120 per cent are contrasted with commercial loans in the Netherlands and Genoa of 10-20 per cent. In the thirteenth century rates remained very high in England and Germany, but Venetian loan rates for 'States'² had fallen substantially to between 5 and 12 per cent. Late in the century, Italian commercial loans had fallen to between 8 and 15 per cent.

In the fourteenth century the striking development is the low rates of interest on Italian commercial loans for short-term. Homer records rates falling to 5-8 per cent, and then – "late in the century" (p. 103) – 5 per cent. Rates held at these levels for the fifteenth century. At this time, banking appears to have spread to Germany, with the 'Hochsteller' bank paying 5 per cent on small deposits. The sixteenth century saw lower commercial rates becoming more widespread, with rates of 4-12 per cent in Italy, Antwerp and Lyons. But, at this point, the balance of power shifted: "Finance supported the great wars of the sixteenth century, and war gave Italian and German bankers great power and led to their ruin. Unpaid mercenaries sacked Antwerp and Rome" (p. 111).

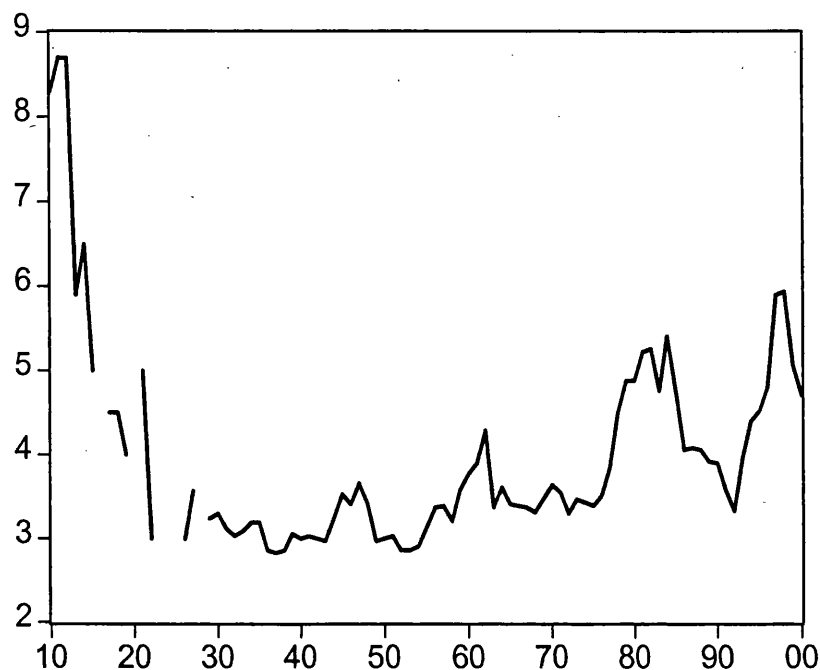
The seventeenth century saw the commercial and financial dominance of the Netherlands. Homer first emphasises that "State credit became excellent" (p. 114). State rates were reduced gradually from 8 1/3 in 1600 to 4 per cent in 1654; following opposition to going as low as 3 per cent in 1665, the rate was reduced to 3 2/3 in 1672. War with France then intervened and rates rose. But peace in the period 1679-1700 saw new loans floated at 3 per cent. Alongside the progress on state rates, Homer asserts that "Modern 'easy money' was discovered". For rates on short-term commercial credit, Homer first cites Child's and Law's observations of Dutch rates of 3 and 3 1/2 per cent. He goes on, "Finally, at the turn of the eighteenth century the rate of interest on the Amsterdam Exchange was reported as falling to 2% or even to 1 3/4%. This is the first record of such low rates that we have for northern Europe, although a century earlier even lower rates may have prevailed in Genoa" (p. 129). At this point war interrupted progress again; this time Holland was never able to regain the initiative.

The eighteenth century sees "England's turn to achieve financial leadership" (p. 147). Homer discusses the trends in long-term government bond yields in two parts: "(a) From 1700 to mid-century, the yields declined most of the time; starting at 6-8% they finally broke through 3%. This first, easy money period culminated in the flotation of the famous British 3% consols in 1751. (b) From 1754 on, consols fell in price, and yields rose in a highly erratic pattern" (p. 155; Figure A7.1). English usury laws were amended in 1714 reducing the maximum rate of interest from 6 to 5 per cent, which became the discount rate for the Bank

² The Republic of Venice floated long-term loans called 'Prestiti' that the wealthy were obliged to take up in proportion to their wealth.

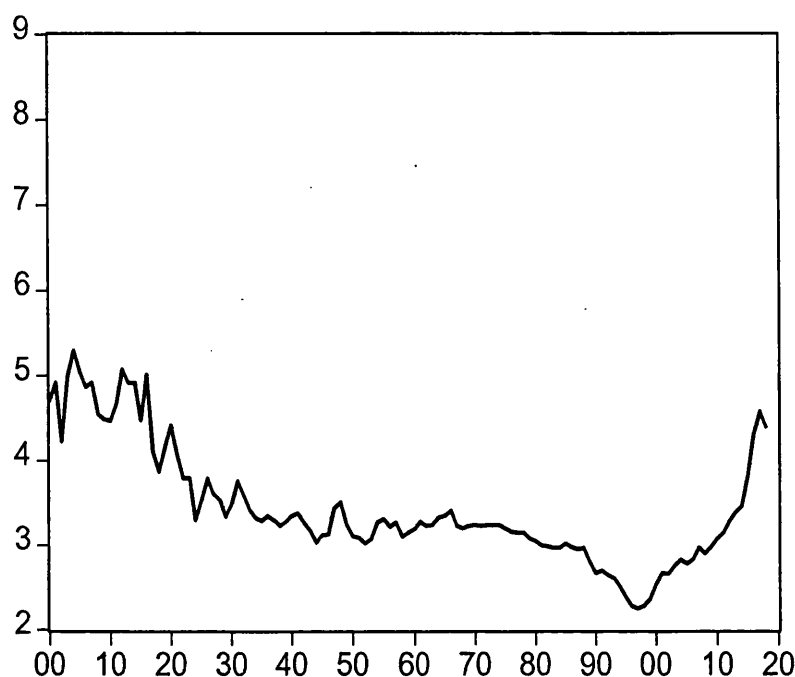
of England for almost the whole century (notwithstanding “preferential discount rates of 4½% and then 3%”, p. 164).

Figure A7.1 Long-term interest rates in England, 1710-1800



For much of the nineteenth century English long-term rates remained at just above 3 per cent (Figure A7.2). But in the 1880s and 90s progress was made to long rates below 3 per cent. In 1888 the Chancellor, George Goschen, took the decisive step and converted the national debt to 2½ per cent. By 1897 the new consols yielded 2.21%, perhaps the lowest long rate in history.

Figure A7.2 Long-term interest rates in England, 1800-1918



Furthermore, for the first time in history, cheap money became a world-wide phenomenon (Table A7.1). Homer describes the period as the “golden age of easy money” (p. 200) and records an observation due to Eugene Von Bohm-Bawerk (1851-1914): “The higher are a people’s intelligence and moral strength, the lower will be the rate of interest” (p. 200).³

Table A7.1 The lowest national long rates on government debt

	Rate	Year
France	2.96	1897
Holland	2.72	1895
Belgium	2.56	1894
Germany	3.35	1897
Sweden	3.64	1890
United States	2.22	1899

³ It is referenced: “... quoted by J. A. Schumpeter in *Ten Great Economists* (New York: Oxford University Press, 1951), p. 182.”.

As in Italy and the Netherlands, war low English rates were brought to an end by war. The Boer War (1897-1902) saw rates rising back to 2.5 per cent by the end of the century. Ten years later, W.W.I brought the 'golden age of easy money' to a decisive and bloody end.

Chapter 8

The Saving-Investment Identity and the Transition from the *Treatise* to the *General Theory*

8.1 Introduction

In late 1932, Keynes recognised that the nature of the relationship between the macroeconomic aggregates saving and investment was one of identity rather than equilibrium. The central argument of this chapter is that this was the ‘discovery’ that set Keynes away from the *Treatise* and became the foundation for all his subsequent theoretical arguments. The nature, cause and effect of the saving-investment relationship are crucial components of the positive and logical statement of Keynes’s *General Theory*.

The corollary of this argument is that, as with the monetary nature of his economics, Keynesian economics has diverted economic science from this ‘discovery’. The diversion began virtually the moment that the discovery was made. Robertson put forward an alternative definition of saving, more compatible with his loanable funds perspective, as rival to both Keynes’s *Treatise* position and his developing position. Robertson’s assault was relentless and is judged here to have been aided by inadequacies in Keynes’s treatment of the relation both in

the *GTOEIM* and in his response to his critics. After the war a relationship between saving and investment that owed more to Robertson than Keynes emerged as a central component of the Keynesian model. But, while there was inevitably some common ground, the nature, cause and effect were wholly different to Keynes's version. Indeed in the Keynesian version, the relationship became the central component of the theory rather than a point of departure for an alternative theory. While Keynes's relationship was finally restored by some post-Keynesian economists, its position in the *General Theory* itself has not been fully recognised.

This chapter therefore examines first each of the nature, cause and effect of the identity in the context of the logical positive statement of the *General Theory* that Keynes never made. The discussion then goes on to examine the historical context of Keynes's actual discovery of the identity, how it influenced his theoretical development and how others interpreted, criticised and ultimately lost this fundamental logical step.

8.2 Nature, cause and effect

In the *General Theory*, the relationship between saving and investment is a relationship between macroeconomic aggregates in monetary or nominal terms. The *nature* of this relationship is that, in any period, the aggregate flow of saving is exactly and necessarily equal to the aggregate flow of investment. This position stands in contrast with classical theory where the relationship between saving and investment is an equilibrium between real resources (most famously corn for consumption versus corn for planting); saving is equal to investment, but this equality arises through the rate of interest equilibrating the supply of and demand for saving. Keynes did not use the term 'identity' himself, but it is used here to draw a clear distinction between the two types of equality – one arising through equilibrium and the other through necessary equality. This relationship was not a

matter of definition adopted for convenience, but a profound ‘discovery’ with cause and effect.

Turning to cause, the identity is essentially a *monetary phenomenon*. The link between theories of saving and investment and monetary factors has been exposed most fully in Chick’s work. The analysis follows from her characterisation of the evolution of banking in ‘stages’. At the second of five stages “the banking system can now lend to a multiple of reserves, subject to a conventional or imposed reserve requirement; deposits are a consequence” (Chick, 1992, p. 195). The conclusion is as follows:

With the arrival of Stage 2 banking, investment could precede saving; ... Subsequent banking developments have not changed that process; they have intensified it. ... From Stage 2 onwards, ‘savers’ have no influence over the volume of banking business or the volume of deposits. (Chick, 1992, pp. 199-200)

The identification of the *causal priority for investment* is the first of a two-part argument. At this point, with investment no longer constrained by the amount of current income set aside as saving, the classical model of an equilibrium relationship between savings and investment must be rejected. Instead, investment is an autonomous variable, determined by a demand unrelated to aggregate saving (see Chapter 10). The second part of the story is that investment, as Keynes later put it, ‘always drags [saving] along with it at an equal pace’ (CW XIII, p. 276). The demonstration here involves both macroeconomic and microeconomic arguments.

From a macroeconomic perspective, the relation has traditionally been demonstrated using a national-accounts-type presentation: $Y=C+I$ and $Y=C+S$, $\therefore S=I$. However, this only shows that the two variables are equal; it does not distinguish between equality, equilibrium and identity and pays no attention to the underlying causal processes that allow the identity to be asserted. With the recognition of the relation’s monetary nature, it is an altogether more powerful proposition. From ‘stage 2’ an increase in investment no longer requires a

/ $S \equiv I$

decrease in consumption as in the fixed output world of classical economics. Instead, with consumption unchanged, *an increase in investment leads directly to an increase in income*. The national accounts presentation could be enhanced by considering two periods, 1 and 2, with C, I and Y obviously defined.

$$C_1=C_2=C$$

$$I_1=I$$

$$I_2=I+\Delta I$$

$$Y_1=C+I$$

$$Y_2=C+I+\Delta I = Y_1+\Delta I \quad (8.1)$$

given $S=Y-C$

$$S_2=Y_1+\Delta I-C$$

$$\Rightarrow S_2=I+\Delta I=I_2 \quad (8.2)$$

In this way saving is *kept* equal to investment (8.2) by the increase in income (8.1). It should be emphasised at this point that the discussion is in terms of *income* rather than *output*. This goes back to the opening point that the identity is a monetary or nominal proposition. Keynes's theories of effective demand and the determination of output and price emphatically see an increase in output following an increase in demand, but price too is likely to move. In the context here, an increase to investment demand will increase income through increasing both output and price.

From the microeconomic perspective, Chick makes the crucial point: "the matching saving in the first instance is the new bank deposits resulting from loan expansion" (Chick, 1992, p. 199). Any credit created to finance investment creates deposits to exactly the same value. At any subsequent time in the economic process these deposits are somebody's savings. The act of spending the deposit simply transfers the deposit to somebody else. From the perspective of the recipient, the transfer of deposit is income, and if they do not spend the income in the period of account, with saving defined as income not spent, the deposit is saving. Even if the deposit is spent several times over in the period of account,

some of it may be saved in each set of hands that it passes through and the rest will always be held idle at the end of the period of account. In this way, a constant and increased level of saving is preserved from the moment the credit is created. (This argument has clear parallels with a process analysis of the new spending based on the multiplier; the technique is addressed in section 8.7.)

The discussion can also be viewed from two other perspectives. One that came to prominence immediately after publication of the *GTOEIM*, used the concepts *ex-ante* and *ex-post* savings that Ohlin introduced in the course of the 'alternative theories' debate. In each period a flow of *ex-ante* saving can be identified as due to the level of investment and activity in the previous period. As will be discussed, the loanable funds perspective gives emphasis to the requirement for credit or 'finance' as the difference between *ex-ante* and *ex-post* saving. The second was the notion of voluntary and involuntary saving. *Ex-post* saving would partly be forthcoming from existing *ex-ante* (voluntary) savers but part would be new savings created by new activity and price change which we could describe as involuntary. Involuntary saving is therefore a macroeconomic consequence of an increase in investment activity. Both perspectives elaborate the underlying processes, but it should be stressed that those who were concerned to discuss matters in these terms were also concerned to preserve some degree of causal priority to saving in the determination of the rate of interest. This stance was at least in part due to a predisposition to loanable funds. For Keynes, saving ceased to have any causal significance in the basic economic processes that he was interested in exposing.

The first *effect* of the identity was not a logical effect, but an effect on the historical development of thought. In the *Treatise*, Keynes was concerned with establishing the link between (i) a short-period process characterised as a disequilibrium investment cycle (facilitated by credit); and (ii) a long-period classical equilibrium. The centrepiece of his analysis was the relationship between saving and investment. The long period was defined in classical terms as an equilibrium between saving and investment at Wicksell's 'natural rate of interest'. The short-period process saw saving and investment move out of line

due to a divergence between the market rate of interest and this natural rate (CW V, pp. 138-42). Long-period equilibrium was restored through relative price changes in consumption and investment goods. Keynes therefore adhered to the underlying equilibrium relationship of the classical case, but a disequilibrium between the two quantities provided the basic dynamic of the economic cycle. The effect of Keynes's 'discovery' of the identity between saving and investment was therefore deeply to undermine the characterisation of events in the *Treatise*. This was a, if not *the*, historical development that set Keynes towards the *General Theory*. As section (6) will demonstrate, within about a year from the recognition of the identity, the significant theoretical steps towards the *General Theory* had been achieved. In turn, these significant steps largely arose from the theoretical effects of the identity that will now be addressed.

The second effect of the identity was to re-enforce Keynes's developing attitudes to the priority of investment and to the desirability of individual or collective acts of saving, that were opposed to the classical theory. The *Treatise* had recognised that an act of saving did not necessarily increase investment:

In short, the increase or decrease of capital depends on the amount of investment and not on the amount of saving.

That saving can occur without any corresponding investment is obvious, ... There is no increase of wealth in any shape of form corresponding to the increase of saving – the saving has resulted in nothing whatever except a change and change-about between those who consume and between those who own titles to wealth. (CW V, p. 156)

Keynes's identity fatally undermined the classical causal nexus. Investment was seen to cause a necessarily equal amount of saving rather than increased saving being necessary for increased investment. The recognition of the identity therefore helped explain and re-enforced this specific point from the *Treatise* (despite throwing the wider analysis into doubt). In the *General Theory*, the classical position was ultimately completely reversed. Through the theory of effective demand, an increase in saving was reflected as a reduction in the marginal propensity to consume and this led to a reduction in income via a

reduced investment multiplier. High consumption – not high saving – led to high investment and high income.

The third effect of the identity was fatally to undermine the depiction of long-period equilibrium in his *Treatise* and perhaps too of the classical analysis. Working from the position of the *Treatise*, if saving were identical to investment, the variables could no longer define a unique position of equilibrium. With saving identical to investment at any level of employment or output, the long-period position of the economic system itself was no longer defined. Ultimately therefore, and in a manner not wholly clear from available published material, the identity led Keynes from the single-equilibrium system of the classical theory and the *Treatise* to the multiple-equilibrium system of the *General Theory*. The proposition that, given the usual ‘real factors’, a free market economy does not have a unique equilibrium, is surely *the* fundamental theoretical distinction between the *General Theory* and the classical theory.

Fourthly, with investment identical to saving, there was no longer a theory of interest. The identity therefore provided the logical opening for the liquidity preference theory of interest.

There is a substantial degree of inter-relation between each of these theoretical effects. However each effect is a difference of the most substantial importance when considering the relation between the *General Theory* and the classical theory. Each effect is in fundamental opposition to the propositions and theory of the classical economics.

8.3 The saving-investment debate

The relationship between saving and investment quickly dominated the debate after the publication of the *Treatise*. While Hawtrey’s detailed critique, eventually published as *The Art of Central Banking* (1932), was very important to the change in Keynes’s perspective, ironically the midwife to the identity was Robertson.

The debate appears to have started with a letter from Robertson in May 1931; this contained a document that was essentially Robertson's critique of the *Treatise*.¹ Following receipt of the paper, there was a prolonged exchange of views between Keynes and Robertson that also drew in J. A. Hobson, Kaldor, Pigou, Sraffa and Hayek, with Kahn involved in advising Keynes throughout. Robertson's paper, 'Mr Keynes' Theory of Money', and a rejoinder by Keynes were published in the September 1931 *EJ*.

From the perspective of this chapter, the important point in Robertson's published critique concerned the definition of income that Keynes had adopted in the *Treatise*:

8. I pass on to another distinctive feature of Mr. Keynes' work – the sharp distinction which he draws between "incomes" and "profits." "Incomes," it will be remembered, include the normal earnings of the entrepreneur, whether these are in fact being earned or not; and "profits," positive or negative, are composed of the difference between the *actual* net receipts of the entrepreneur per unit of time and these theoretical "incomes." "Incomes" are usually assumed not to alter during the short transitional periods with which, in the study of the trade cycle, we are concerned. "Savings" can only be made out of "incomes," so that if an entrepreneur spends his "profits" on the purchase of new machines, he is not "saving," while if he refrains from spending on consumption a normal income which he has never received, he is deemed to be "saving."

I do not think there is any question that his terminology is extremely confusing, and will be liable to lead even practised thinkers into error unless they are continually on their guard. (Robertson, 1931, pp. 406-7)²

After discussing what he saw as the substance of their respective positions, Keynes's published response turned to what he referred to as Robertson's 'other comments'. The penultimate of these addressed what was, at this stage, a definitional issue:

¹ The exact course of events and developments must be partly based on conjecture since Moggridge's notes in *Collected Writings* indicate much of this material during the course of the dialogue is missing. The relevant parts of volume XIII refer to missing papers on pages 211, 214 and 218.

² Keynes adhered to Marshall's concept of 'normal' output and prices, a long-period position where only normal profits were made. While the short period of the *Treatise* saw supernormal profits made, Keynes continued to define income with this long-period position in mind and excluded such profits.

I will consider what Mr Robertson says about nomenclature in his [section] 8. I think I might do better than in my *Treatise*, but it is not very easy. The last paragraph of his [section] 8, of which I can make nothing, makes me think that he does not quite see the difficulty. For if, as he suggests, we were to define 'income' to mean 'earnings *plus* profits' ($E + Q$ in my notation) and 'saving' to mean the difference between income thus defined and expenditure on consumption ($S = E + Q - PR$), then it would follow that savings and the value of new investment would always be exactly equal (for $Q = PR + I - E$, so that $S=I$). Does Mr Robertson, in practice, mean by 'savings' exactly the same as what he means by 'the value of new investment'? (CW XIII, pp. 234-5)

Keynes and Kahn clearly discussed the detail of the two papers prior to publication. Kahn's critique hinted at the solution that was shortly to emerge, with his comments illustrating that he saw sense in Robertson's definition: "But surely Dennis is merely adopting a perfectly simple-minded and natural definition of saving – receipts minus expenditure – though it is true that it involves him in the difficulty to which you allude?" (15 August 1931, CW XIII, p. 238).

Skidelsky discusses a letter of 1 October 1931 that shows Keynes pursuing this line of thought in order to help address shortcomings that Hawtrey had raised in his critique of the *Treatise*:

I could further re-express my theory in your language ... by saying that ... whenever there is increased capital expenditure then, other things being equal, consumers' income is increased by an equal amount. And again, whenever anyone saves money, other things being equal, that has the effect of reducing consumers' income by an equal amount. (Skidelsky, 1992, p. 446)³

Hayek's involvement came through his two-part review of the *Treatise* that was published in *Economica*. The first instalment was published in August 1931, thus coinciding precisely with the above debate (the second was published in February 1932). Keynes was very unhappy with the review, and published a response in the November 1931 *Economica*. In the course of this response Keynes used the definitional identity in a more positive manner:

Has he, moreover, apprehended the significance of my equation $S+Q=I$, namely that savings *plus* profits are always exactly equal to the value of new investment? It follows from this that, if we define *income* to include profits, and savings as being the excess of income thus defined over expenditure on consumption, then savings and the value of investment are identically the same thing. He appears to conceive of savings and investment as not being identical and yet shrinks from defining them accordingly. (CW XIII, p. 251)

After a limited amount of follow-up correspondence, Keynes called a halt in March 1932. He wrote to Hayek (as he had already done to Kaldor – Hayek’s research assistant at the time): “I am trying to re-shape and improve my central position, and that is probably a better way to spend one’s time rather than in controversy” (CW XIII, p. 266).⁴

True to his word to Hayek, on 22 March 1932 Keynes sent a long paper to Robertson, ‘Notes on the Definition of Saving’; a covering letter began: “I have been trying recently to avoid controversy and to get back to the beginning in restating the point of view which I seem to have put inadequately in Book Three of my *Treatise*” (CW XIII, p. 275). The position set out in the paper reflects a substantial development in thought and is very important in the history of the transition.

The paper opened with a re-statement of the definition of income along the lines recommended by his critics:

Let E be the amount of earnings or cost of current net output, i.e. the sum of fixed and variable costs and of entrepreneur’s inducement.

Q the net profits of entrepreneurs, i.e. the amount of their actual net receipts in excess of entrepreneurs’ inducement. So that $E+Q=E'$ which is

³ Skidelsky offers a reference to the Hawtrey papers (RGHP: 11/5); he notes that the piece is ‘Omitted from *CW*’.

⁴ Hayek allegedly claimed he did not review *GTOEIM* because Keynes changed his mind too often. Given Hayek was actually trying to persuade Keynes to change his mind, this defence is not very credible. Keynes responded to his critics by developing his analysis, not by changing his mind. Hayek chose not comment on these developments. More plausible, surely, is that Hayek had no answer.

total income in Hawtrey's, Hayek's and D.H.R.'s sense, and in the sense to which I have now bowed the knee. (CW XIII, p. 275)

Keynes then turned to the relationship between saving and investment. He began with definitional issues and then looked to issues of causality and of practical implication:

... Thus the S' definition of savings works out to be identical with the value of current investment. And this is the justification for the old-fashioned 'common-sense' view that savings and investment are, necessarily and at all times, equal, – being, indeed, the same concept looked at from opposite points of view.

On the other hand the implications of this use of language are decidedly different from what 'common-sense' supposes. For S' always and necessarily accommodates itself to I . Whether I consists in housing schemes or in war finance, there need be nothing to hold us back, because I always drags S' along with it at an equal pace. S' is not the voluntary result of virtuous decisions. In fact S' is no longer the dog, which common sense believes it to be, but the tail. ...

Thus whilst it remains true that an increase of savings S' must increase the value of investment, it does not follow that a decreased expenditure on consumption will increase S' . The mistake of the 'common-sense' view lay not in the belief (using words as it chose to use them) that an increase of savings S' necessarily means an increase in the value of investment. The mistake lay in supposing that a decreased expenditure on consumption leads (*cet. par.*) to an increase of S'

The two matters of primary importance to the community are the aggregate of real output and the increment of real capital. Therefore it is of great significance to show that a decreased expenditure on consumption does not necessarily lead to an increment of real capital even if aggregate real output is unchanged; Indeed it is easy to conceive circumstances in which a decreased expenditure on consumption leads to a decrease both of real output and of real investment. (CW XIII, pp. 275-9)

The importance with which he regarded these developments was emphasised by his 'Preface' to the Japanese edition of *Treatise*; this was dated 5 April 1932, 18 months after the publication of the British edition and only a few weeks after he sent his paper to Robertson. After a discussion of the highly significant events set in motion by the collapse of the gold standard, he turned to "matters of purely

theoretical interest which I would wish to take this opportunity to mention” (CW V, p. xxii). The first of these was the “distinction between *saving* and *investment*”. He set out the new position that the debate had led him to:

The difference begins, I think, with a lack of clearness in former definitions of the meaning of *saving* or of *voluntary saving*. My definition of *income* is thought paradoxical because I exclude from it (as explained below) windfall profits and losses, and my definition of *saving*, being the excess of income thus defined over expenditure on consumption, corresponds to my definition of *income*. But those who object to these definitions have not, I think, followed out to the end the consequences of rejecting them. For if windfall profits and losses are included in income, i.e. if income is defined as being not E , but $E+O$... and saving as the excess of income thus defined over expenditure on consumption, it follows that saving is in all cases exactly equal to the value of current investment. That is to say the total volume of saving ceases to be a factor having any independent existence. Its amount cannot be affected by the voluntary decision of the various recipients of income as to how much of their income they will spend on consumption; and it solely depends on what the value of current investment happens to be. This seems to me not less paradoxical than my use of these terms, ... (CW V, p. xxiii)

At this stage he presents the identity as helping to clarify the position and subsequent debate of the *Treatise* rather than setting the way to the far-reaching consequences. He closed the Preface as follows: “It is not, however, my intention to revise the existing text of this *Treatise* in the near future. I propose, rather, to publish a short book of a purely theoretical character, extending and correcting the theoretical basis of my views as set forth in Books III and IV below” (CW V, p. xxvii).

Keynes’s lecture notes written just after the Japanese Preface to the *Treatise* show things moving on. *Collected Writings* XXIX records “[t]yped and handwritten fragments from which Keynes appears to have lectured, 2 May 1932” that dwell on the distinction between the *Treatise* and his latest position:⁵

Thus we are left with the remarkable generalisation that, in all ordinary circumstances, the volume of employment depends on the amount of

⁵ The identity can also be seen from the students’ perspective on pages 62, 116, 120 and 167 of Rymes’s (1989) book of lecture notes.

investment, and that anything which increases or decreases the latter will increase or decrease the former. ...

The general upshot of this and the previous chapter seems to be that the fluctuations of output and employment for a given ~~commodity~~ over the short period, within the ranges of fluctuations which certainly occur, depend almost entirely on the amount of current investment – not indeed with logical necessity but with a high degree of probability in practice. This goes beyond the contention of my *Treatise*, where it was meant to depend on the amount of Investment *relatively* to Saving – which has the advantage of logical necessity, apart from the results of temporary miscalculation or of a policy which deliberately ignored considerations of profit. (CW XXIX, pp. 40-1)

/community

The position cited indicates that over the course of April and May 1932 Keynes had begun to include the identity as part of his own positive analysis. Kahn too incorporated it into his own work, re-iterating Keynes's original statement of the identity in the September 1932 *EJ*:

in the ordinary sense of the aggregate of the excess of individuals' receipts over their expenditure on consumption. But in the simple-minded sense of the term, savings are *always and necessarily* equal to investment: that is a mere truism, which emerges at once, as Mr. Keynes has demonstrated [a year earlier in the *Economic Journal*], from the simple-minded definition of savings. Whatever the level of investment, funds are always available to pay for it. (Reprinted in Kahn 1984, p. 101)

8.4 The effect of the identity

As can be seen from the above extracts, Keynes first used the identity to re-enforce the *Treatise* position that investment dominated matters and that increased saving was not helpful to higher output. His 'Preface' to the Japanese edition suggests that the basic long-period/short-period distinction of the *Treatise* remained in place. Matters were to change swiftly. The main period of theoretical development was between the Japanese edition of the *Treatise* and the end of 1933.

Unfortunately, virtually nothing relating to these developments is reproduced in either of the relevant volumes of *Collected Writings* (XIII and XXIX). Table 8.1 details the published private correspondence from the March 1932 paper he sent to Robertson until the preparation of the proofs of *GTOEIM* (published articles and pages of early draft chapters are omitted). There are only 13 short series of correspondence over this crucial *three-year* period.

Figure 8.1: Correspondence published during the transition¹

Volume/pages	Date	Between	Subject
XIII 289-320	Mar 32-Nov 33	*DHR/Keynes	S/I
XIII 376-380	May 1932	*J. Robinson /Keynes	S/I and output adjustment
XXIX 42-48	May 1932	Robinson et al	ditto
XXIX 58-62	Jan 1933	*Keynes/Clark	estimates of the multiplier
XIII 419	May 1933	Keynes to Robinson	two sentence note on the rate of interest
XIII 412-418	Sep 1933	*Kahn/Giblin/Keynes	brief exchange on the multiplier following publication of <i>Essays in Persuasion</i>
XIII 321-326	Sep/Oct 33	*Shove/Keynes	Pigou's 'The Theory of Wages'
XXIX 120-122	Mar 1934	from Kahn	definitional issues
XIII 422	Apr 1934	to Kahn	half page note on definition of Effective demand
XXIX 122-131	Nov/Dec 1934	Lindahl/Keynes	S/I (includes Lindahl's 7 page paper)
XIII 492	Jan 35	Keynes to Bernard Shaw	impact of his theory
XXIX 131-151	Jul 35	*Bryce/Keynes	Bryce's 19 page 'monetary theory of employment' and Keynes's one page response
XXIX 157-161	undated	*Keynes/Sraffa	discussion of wage cut

1. Pages 211, 214, 218, 266, 271, 294, 306, 419 and 477 of CW XIII contain explicit references to missing material.

* Indicates series of correspondence.

The evidence that Keynes made his great leap forward in this period is a single extract from *CW* and two entries in Rymes's compilation of lecture notes. While slight, the extracts show unambiguously that Keynes had moved from the unique equilibrium system of the *Treatise* to the multiple equilibrium system of the *General Theory* and had brought the savings-investment identity to bear on the theory of interest. In addition, as Table 8.1 indicates, any slightness of evidence must be seen in the context of the wider lack of published correspondence in this period.⁶

The transition to multiple equilibrium is seen from Keynes's perspective in lecture notes reproduced in *CW* XXIX. Moggridge reproduces what he refers to as a "[t]yped and handwritten fragment from which Keynes appears to have lectured, 14 November 1932":

For the root of the objection which I find to the theory under discussion, if it is propounded as a long-period theory, lies in the fact that, on one hand, it cannot be held that the position towards which the economic system is tending or the position at which it would be at rest or the *optimum* position ... whichever of these tendencies we have in view, is entirely independent of the policy of the monetary authority; whilst, on the other hand, it cannot be maintained that there is a unique policy which, in the long run, the monetary authority is bound to pursue.

Thus I conclude that this theory is not really dealing with a generalised doctrine of the long period, but is concerned rather, *with a special case*; i.e. with a long-period position corresponding, in some or all of the senses of this term, to a *particular* assumed policy on the part of the monetary authority.

On my view, there is no unique long-period position of equilibrium equally valid regardless of the character of the policy of the monetary

⁶ In this way I reject the sentiments of Keynes's biographers: "... the new theory emerged through a process of intellectual argument, marked by a sense of high responsibility from all concerned to get the logic of the argument right. This argument is extremely well documented. ... The historian and biographer is therefore well placed to piece together the stages in the intellectual construction of the *General Theory*" (Skidelsky, 1992, p. 441); and "Although scholars will always hope for more, it is probably the case that with the *General Theory* they have the most voluminous record surrounding the creation of any classic work in economics, even excluding the continued post-publication material of elucidation, elaboration and defence" (Moggridge, 1992, p. 557).

authority. On the contrary there are a number of such positions corresponding to different policies. Moreover there is no reason to suppose that positions of long-period equilibrium have an inherent tendency or likelihood to be positions of optimum output. A long-period position of optimum output is *a special case* corresponding to a special kind of policy on the part of the monetary authority. This conclusion will be developed in subsequent chapters. [Moggridge then notes: “although the pagination is consecutive, some words are missing at this point”] (CW XXIX, pp. 54-5)

While the extract above and fuller published version do not use the identity as a motivating force, the text is a categorical statement about the nature of the economic system that Keynes has in mind. Chronologically, the lecture came only a few months after his fuller development of the identity. The same passage can also be seen from the student perspective under a very important title: Rhymes (1989, p. 73) reproduces a “Sixth Lecture: 14 November 1932”, “Monetary and Neutral Economy and Long and Short Periods”.

The *only* early published reference to the theory of the rate of interest during the key period of transition is in Rymes’s compilation of lecture notes. The relevant statement comes from a lecture on 27 November 1933 – one year after the above extract. In this lecture, the saving-investment identity is the motivating force for the rejection of the classical theory of interest:

For the community, aggregate saving and investment must be equal. One ‘can’t discover where a point is by having two names for it’. Saving and investment balance at any rate of interest, therefore any analogy with demand and supply analysis doesn’t work. The analogy is like trying to deduce the price from the equality of *buyers* and *sellers*. ...

The ordinary theory of interest is the one which I was brought up on, and I think I taught it once, a certain number of years ago, but it doesn’t hold one drop of water. It is the idea that the rate of interest is determined by the point of intersection of two supply and demand curves, that of Saving and that of Investment. ...

But we have just seen that these curves run parallel, or rather are coincident, because Investment and Saving are merely two names for the same thing. You cannot find where a point lies merely by having two names for it. The curves rise and fall together, not in opposite directions. (Rhymes, 1989, pp. 121-2)

From the broadest theoretical perspective, these and other lecture notes show that by the end of 1933 Keynes had in place the beginnings of the marginal propensity to consume, a theory of investment demand and the liquidity preference theory of interest. It must be emphasised that the lack of published correspondence means that there is basically no record of what Keynes saw as the implications of each of these discoveries as he made them.

8.5 Dispute prior to the *GTOEIM*

While Keynes's fuller treatment of the saving-investment identity would not see the light of day until the publication of *GTOEIM*, the continuation of the dialogue with Robertson and an initiative due to Roy Harrod ensured that the identity was publicly aired, debated – and hence criticised – before 1936.

Robertson's own theoretical development at this time is noteworthy in itself. As seen, Robertson's critique was a significant factor in development of Keynes's new position. But as soon as Keynes articulated this position, Robertson was immediately dissatisfied and retreated to develop a new position of his own. Such theoretical contortions could be taken as indicative of a desire to oppose Keynes rather than a quest for truth.

Apart from the March 1932 paper, Keynes also sent Robertson copies of his lecture notes on this topic (CW XIII, p. 294). The two exchanged correspondence in May 1932; Robertson then wrote a holding reply on 21 June 1932 and fell silent for about ten weeks. On 2 September 1932 he sent Keynes a very short paper, 'Some Revised Definitions of Saving and Allied Concepts', that he described as "the product of a lot of reflection" (CW XIII, p. 302). Keynes's response to Robertson's new position is not recorded: "at this point a further gap appears in the Keynes-Robertson correspondence" (Moggridge in CW XIII, p.

306). The next published paper from the dialogue with Robertson is dated May 1933.

This stage of the debate ended with new *EJ* articles. Robertson's 'Saving and Hoarding' appeared in the September 1933 *EJ*, alongside rejoinders by Keynes and Hawtrey. Robertson published a re-rejoinder in the December 1933 issue. This debate essentially saw Robertson 'get in first'; he offered his new definitions of saving: "A man's disposable income ... is ... the income received not on that day but on the previous one. A man is said to be *saving* if he spends on consumption less than his disposable income" (Robertson, 1933, p. 399). Keynes disputed the usefulness and relevance of Robertson's construct, and Hawtrey offered a critique on points of detail. In the course of his response, Keynes set out the new position he was developing:

If we define savings as the excess of income during a period over expenditure on consumption during that period, it follows that savings are exactly equal to the value of output added to accumulated wealth, i.e. to investment. The sense of saving in which it is necessarily equal to investment, i.e. the excess of current income over current consumption, let us, for the present, call *surplus*. In my *Treatise on Money* I gave a definition of savings which was not the same as surplus and was, therefore, not necessarily equal to investment. Mr Robertson also feels a need for a conception of savings which is not identical with surplus and proposes one in the above article. I do not like his conception any more than he likes mine. (CW XIII, p. 327)

Following a discussion of the two positions, Keynes left "the reader to decide" (*ibid.*).

Harrod's part in the saving-investment debate arose from a paper in *Economica* and an article in *The Economist*. Both were primarily concerned with criticising Hayek's theories. However, his paper, 'The Expansion of Credit in an Advancing Community', involved a definition of saving in accordance with Keynes's new definition:

The rate at which credit must be expanded in order to maintain the system, is equal to the rate at which aggregate income is increasing. ...The savings

of the community in any period may be defined as the difference between the value of its total income and the value of the consumable goods purchased therewith. (Harrod, 1934, p. 297)

In the next issue of *Economica*, Robertson addressed Harrod's article in a peculiar manner. He labelled the relationship the 'Grand Monetary Tautology' and implied that it had long been understood:⁷

... Mr. Harrod seems to me ... to have succumbed to the charms of the Grand Monetary Tautology, which, long found useful by bankers as a cloak for their misdeeds, is now being rediscovered with alarming frequency by theoretical economists. The bank's balance-sheet always balances: *alias* Savings always equal Investment: *alias* all money which is anywhere must be somewhere. (Robertson, 1934, p. 473)

At the end of the short piece, he articulated his main concern: that one should not build a theory on this foundation:

But the preservation of what I will still venture to call equilibrium between real Saving and Investment is, at the least, one consideration among others. ... But I feel pretty sure that we shall get no way at all if all kinds of progress are to be smothered up together in the blanket of the Grand Tautology! (Robertson, 1934, p. 473)

In this way Robertson argued that the saving-investment identity should not be used as the foundation for a theory just as Keynes was doing exactly that. The dialogue was, in effect, a pre-emptive strike at the *General Theory*.

Harrod's work prompted a wider dialogue that drew in Kahn as well as Haberler and Karl Bode. Kahn's comments in the course of the dialogue make perfectly clear his and Keynes's understanding of the identity:

In all these matters I take my standpoint on the fundamental truism that savings are always and in every situation equal to investment ... could anything be simpler and more beautiful than this truism and all that goes with it. (Kahn to Harrod, 22 October 1934, Harrod, 2003, letter 382)

⁷ Private correspondence between Harrod and Robertson shows the phrase as due to Robertson: "... what I have ventured to call the Grand Tautology" (Harrod, 2003, letter 562, 19 May 1936).

... the truism “savings=investment” points to some important truths, e.g.
 (i) investment is always self-financing: there need never be any question of “where the money comes from” ...
 (ii) All references to “forced saving”, etc. are meaningless.
 (iii) It makes no difference what part the banking system is playing in supplying credit or taking charge of hoarded funds.
 (iv) The rate of interest cannot be determined by the “supply and demand of savings”. (Kahn to Harrod, 1 November 1934, Harrod, 2003, letter 391)

Nevertheless, Robertson continued to pursue the same point on reception of the galley proofs of the *GTOEIM*, writing on 3 February 1935:

I'm afraid I haven't altered my view that equations of the type of those on p. 63 [vol. XIV p. 424] are unsuitable for application to heterogeneous slices of time within which income is changing, because they obscure the time element. (I never liked Kahn's s[hort]. p[eriod]. method in his public works article: but it did at least allow *time* (though unspecified in amount) for the 'savings', corresponding to an act of investment financed (e.g.) by new bank money, to be elicited: whereas now, since there is no limit to the shortness of time over which we are at liberty to apply your equations, they are simultaneous and identical.) It seems to me that the rehabilitation of the Grand Tautology takes us all back to the pre-Withers, pre-Wicksell days, and obscures instead of clarifying what happens when an act of investment takes place. But you have made your mind up on this! (CW XIII, p. 497)

Keynes's response specifically addressed this point:

The grand tautology has either to be accepted or disposed of. I think it is important because it clears away lots of very subtle muddles which seem to take almost everyone in. They think that they can use the terms with their natural senses and yet escape the tautology. One might call $2+2=4$ a grand tautology. Indeed it is, but that would not dispose of it. (CW XIV, p. 512)

Robertson's arguments left Keynes unmoved. However, in creating his own definition of saving, Robertson set out a position that in general terms could challenge Keynes's version, and more specifically could be taken as implying that the relation was a matter of definition rather than a causal proposition of theoretical substance. In my view, Keynes never adequately dealt with this definitional *versus* causal issue.

8.6 The nature and effect of the identity in the *General Theory*

Foreshadowing his response to his critics, Keynes's treatment of the identity in the *GTOEIM* did not set the identity out as a central logical proposition, but was more low-key. The title of Chapter 6, where the identity was first mentioned, was rather inappropriate: 'The Definition of Income, Saving and Investment'. The first actual presentation of the identity also had a definitional flavour. Keynes expressed the relationship using the national accounts identities:

Whilst, therefore, the amount of saving is an outcome of the collective behaviour of individual consumers and the amount of investment of the collective behaviour of individual entrepreneurs, these two amounts are necessarily equal, since each of them is equal to the excess of income over consumption. Moreover, this conclusion in no way depends on any subtleties or peculiarities in the definition of income given above. Provided it is agreed that income is equal to the value of current output, that current investment is equal to the value of that part of current output which is not consumed, and that saving is equal to the excess of income over consumption – all of which is conformable both to common sense and to the traditional usage of the great majority of economists – the equality of saving and investment necessarily follows. In short –

Income = value of output = consumption + investment

Saving = income - consumption

Therefore saving = investment.

Thus *any* set of definitions which satisfy the above conditions leads to the same conclusion. It is only by denying the validity of one or other of them that the conclusion can be avoided. (CW VII, p. 63)

The definition is *ex-post* (or not causal), in the sense that Keynes is talking about macroeconomic aggregates that have already been determined. After further discussion, he only briefly addresses the identity from an *ex-ante* (or causal) perspective:

Saving, in fact, is a mere residual. The decisions to consume and the decisions to invest between them determine incomes. Assuming that the decisions to invest become effective, they must in doing so either curtail consumption or expand income. Thus the act of investment in itself

cannot help causing the residual or margin, which we call saving, to increase by a corresponding amount. (CW VII, p. 64)

The key point that income is not constrained by saving is identified but not given due emphasis. Furthermore, he does not use credit processes to aid the exposition. Credit is only discussed – and somewhat obliquely – in Chapter 7, ‘The meaning of saving and investment further considered’. The analysis comes in the course of a discussion of the treatments of saving and investment due to Robertson, Hayek, Hawtrey and Robbins. Section V discusses the “prevalence of the idea that saving and investment, taken in their straightforward sense, can differ from one another ...”:

It is supposed that a depositor and his bank can somehow contrive between them to perform an operation by which savings can disappear into the banking system so that they are lost to investment, or, contrariwise, that the banking system can make it possible for investment to occur, to which no saving corresponds. But no one can save without acquiring an asset, whether it be cash or a debt or capital-goods; and no one can acquire an asset which he did not previously possess, unless *either* an asset of equal value is newly produced *or* someone else parts with an asset of that value which he previously had. ...

The notion that the creation of credit by the banking system allows investment to take place to which ‘no genuine saving’ corresponds can only be the result of isolating one of the consequences of the increased bank-credit to the exclusion of the others. If the grant of a bank credit to an entrepreneur additional to the credits already existing allows him to make an addition to current investment which would not have occurred otherwise, incomes will necessarily be increased and at a rate which will normally *exceed* the rate of increased investment. (CW VII, pp. 81-2)

The argument is in the negative: Keynes demonstrates that the creation of credit is not inconsistent with the existence of identity. As above, a positive statement of matters would explain the identity by means of the credit-creating process.

However, the identity may have been more critically undermined by Keynes’s diminution of the effect of the identity rather than his portrayal of the cause. The extract from his 1933 lecture (section 8.4) saw Keynes use the identity to dismiss the classical theory of interest. He continued to use the identity in this way in the

early drafts of *GTOEIM*. But Keynes did not use the identity as motivation for the theory of liquidity preference in the published version of the *General Theory*.

The record of the early drafts of the *GTOEIM* (in the annex of CW XIV) shows the extent of the changes to Chapter 14, 'The Classical Theory of the Rate of Interest'. Following a statement of this theory of interest, the text "[n]ow the analysis of the previous chapters will have made it plain that this account of the matter must be erroneous" (CW VII, p. 177) is common to both the second and third drafts. The second draft goes on to reject the classical theory of interest as follows:

The amount of "saving", in the sense undoubtedly intended in the above, is the same thing as the amount of investment, looked at from a different standpoint. The amounts of saving and investment are not two distinct variables which tend to move in opposite directions in response to a change in the rate of interest; they necessarily and always move in the same direction, just as the value of the sales of any commodity always moves in the same way as the value of the purchases. It is impossible that a rise in the rate of interest can at the same time increase the excess of income over consumption and decrease the amount of current investment. At *any* rate of interest, however arbitrarily determined, there will be equality between the two. The amount of "saving" is not something determined by an independent set of causes from those determining the amount of investment. The dichotomy offered by Walras, by Marshall or by Cassel between the causes determining the supply of waiting as set forth in chapter so-and-so and the quite different causes determining the demand for waiting as set forth in chapter such-and-such is a nonsense dichotomy, if we mean by the "supply of waiting", not the "propensity to wait", but the actual excess of income over expenditure. The analogy with the demand and supply for a commodity at a given price is a false analogy. For whereas it is perfectly easy to name a price at which the supply and the demand for a commodity would be unequal, it is impossible to name a rate of interest at which the amount of saving and the amount of investment could be unequal. Whatever determines the one, determines the other at the same time. The analogy would be to describe price as the providential factor which ensures that the amount actually bought is kept equal to the amount actually sold. (CW XIV, pp. 475-6)

The rejection in the third draft did not utilise the identity and presented matters instead according to what might be referred to as the 'income generalised saving-investment diagram', with origins in Robertson's work (section 3.3). According

to this presentation, the classical theory of interest is rejected because it is undefined.

For the assumption that income is constant is inconsistent with the assumption that these two curves can shift independently of one another. If either of them shift, then, in general, income will change; with the result that the whole schematisation based on the assumption of a given income breaks down. (CW VII, p. 179)

Not only does the presentation neglect the role of the identity, but it also contains the seed corn for the Keynesian 'output adjustment' perspective that is discussed in more detail in the next section. It appears that Keynes rejects the classical theory because it fails to take into account income changes. This facilitates a transition to the IS-LM perspective where matters are repaired with the introduction of output (not income) into the two classical schedules. This change of presentation followed persuasion from Harrod, who began a critique of the galley proofs shortly after Robertson and Keynes broke off their dialogue.^{8,9}

8.7 The rival approaches and the multiplier

Robertson's definition of saving as "the difference between *previously received* income and current expenditure on consumption" (Robertson, 1940, p. 6) should be understood in the context of his loanable funds perspective. In this theory, the most important determinate of the rate of interest was the gap between saving according to this definition and current investment (equal to the requirement for finance). Loanable funds considerations were no less important to the Keynesian variant; in addition, the model placed the saving-investment relationship at the centre of a wider theoretical structure. As in Keynes's *Treatise*, the two quantities could diverge and were equal only in long-period 'equilibrium'. As in the

⁸ See chapter 3; Keynes sent Harrod the papers on 5 June 1935, he terminated the dialogue with Robertson on 14 March 1935.

⁹ The relevant discussion between Harrod and Keynes is in CW XIII (pp. 525-565). A good illustration of this neo-classical perspective is Harrod's claim: "The essence of your point I feel to be that the *cet. par.* clause of the supply and demand analysis, which in this case includes the level of income, is *invalid*. The classical theory \therefore is invalid but not nonsense" (CW XIII, p. 540).

discussion of the textbook model of Keynesianism (5.5), the mechanism by which equilibrium was restored was a change in *output*. In algebraic terms, this was effected through adding output (or real income, which they treat as equivalent) to saving and investment functions. The Keynesian model hence not only departed from the notion of identity, but also restored the relationship to the classical real perspective. The analysis had no role for price.¹⁰

The differences between this Keynesian model and the *General Theory* are at the same time substantial and subtle. First, in the *General Theory* the nature of the relationship was identity between monetary variables; but in the Keynesian model the nature was equilibrium between real variables. Second, in the *General Theory* the cause of the identity was monetary. In Keynesianism, the cause – insofar as it existed – was rejecting the assumption of constant (full employment) output in the classical model. But it is in effect that the difference is most profound. In the Keynesian approach the whole model revolved around the saving-investment relationship in the context of the new adjustment to allow for variable output. In the *General Theory*, the saving-investment relationship was merely the springboard to the theories of liquidity preference, effective demand and the cycle as a whole.

Despite these profound differences, the Keynesian version of the relationship has been attributed to Keynes. It is of importance to examine a little further how this came about.

References to output adjustment can be found in Keynes's writings in this period. His treatment has the change in income preserving (rather than restoring) the identity; therefore, to a sloppy reading, the notion of output change is in the air at this time. Furthermore, he was also engaged in a debate with Hawtrey and (later) the 'Cambridge Circus' over a specific point in the *Treatise* where he had assumed that output did not change in the wake of a change in consumer demand.

¹⁰ Hicks later explicitly attributed the assumption to Keynes. In his *Capital and Growth*, Hicks reproduced a paper that claimed the fixed price assumption was one of the "central simplifications

The (three-page) observations of the latter group have become known as a 'manifesto' and have been accorded a crucial role in the transition: "It was the so-called 'manifesto' of April 1932, an open criticism of Keynes's lectures, that made the crucial shift from price to quantity adjustments, which laid the basis of the *General Theory*" (Pasinetti, 1994, p. 4).¹¹ In general terms, this argument ignores the fact that all neo-classical theories saw output adjust in the short period. Eric Davis has pointed out the more specific problem with Hawtrey's theories: "... it was Hawtrey, not Keynes, who first introduced output changes in an equilibrating role and the concomitant identification of quasi-equilibrium positions to economic theory" (Davis, 1980, p. 722). In the light of the interpretation in this chapter, if Hawtrey has precedence it is for the Keynesian model not for the *General Theory*.

The other key issue that has become synonymous with the perceived transition between the *Treatise* and the *General Theory*, and at the same time is related to the saving-investment relationship, is the multiplier.¹² On one hand, Keynes did not use the multiplier to establish the identity between savings and investment.

... of the so-called 'General Theory'" (Hicks, 1965, p. 230).

¹¹ Keynes's later comments on an article addressing similar issues by Joan Robinson (1933) are unambiguous: "I think you are a little hard on me as regards the assumption of constant output. It is quite true that I have not followed out the consequences of changes in output in the earlier theoretical part. I admit that this wants doing, and I shall be doing it in my lectures; though that does not absolve me from being criticised for not having done it in my *Treatise*. But in my *Treatise* itself, I have had long discussions with [?of] the effects of changes in output; it is only at a particular point in the preliminary theoretical argument that I assume constant output, and I am at pains to make this absolutely clear" (CW XIII, p. 270). Kahn's *Making of the General Theory* (1984, p. 111) appears to emphasise the absurdity of the charge that Keynes took output as constant in the *Treatise* by reproducing the same text.

¹² Moggridge's specific use of the multiplier and his general presentation of the transition in *Collected Writings* is obviously influential. As discussed in section 1.4, the saving-investment material is presented as part of the discussion of the *Treatise*. His 'Towards the General Theory' chapter involves virtually no reproductions of useful historical material. Furthermore, the first seven pages of this chapter record only Moggridge's own commentary. He opens by emphasising the practical government expenditure proposals set out in *Can Lloyd George Do It?* Next Moggridge emphasises output adjustment: "Moreover, the bulk of the formal analysis of the *Treatise* placed the emphasis on changes in prices rather than output. The concern with output changes was clearly secondary" (CW XIII, p. 338). From this position, he argues that three developments "mov[ed] changes in output to the centre of the stage which they were to occupy in the *General Theory*": (i) the building intensity of the great depression and associated demands for public spending policies; (ii) (what Moggridge regards as) the critical reception given to the *Treatise* and associated debates; and (iii) the 'discussions in Cambridge'. Moggridge's discussion of (iii) emphasises the role of the 'Cambridge Circus' and on Kahn's multiplier that "gave much greater precision to the line of thought that had already emerged in *Can Lloyd George Do It?*" (CW XIII, p. 340).

Instead, the multiplier and the associated technique of sequence/process analysis were drawn into the debate by advocates of the output-adjustment model. On the other hand, once this and associated confusions are recognised and set aside, it is possible that the original development of the multiplier was helpful to Keynes in this transition period, and can usefully aid explanation.

The multiplier (in its sequential form), was first drawn into the debate on the proofs of the *GTOEIM* by Robertson. This is seen first in the quotation on page 12, where he demands a role for *time* in the saving-investment relationship. In the 1936 private correspondence Robertson took a stronger position: “The ‘multiplier’ only becomes interesting when, in Hicks’ phrase, it has wings, i.e. is used to analyse a dynamic process” (CW XIV, p. 97). His later (1940) *Essays in Monetary Theory*, sets out a fuller position. In ‘Effective Demand and the Multiplier’ he portrays Kahn’s multiplier analysis as describing an “... Authoritarian act of investment of money amount N as generating a series of increments of money income – qN , q^2N , etc. – and a series of increments of saving $(1-q)N$, $(1-q)qN$, etc. – at later dates” (Robertson, 1940, p. 117). He goes on to set out a process analysis in response to his own complaint:

... if, with Mr. Kahn, we are prepared to forget about the period of transition, we can declare the problem of the finance of the process of investment to be self-solving.

For the convenience of those who, like myself, are left uneasy by this last step, and who prefer a more explicitly temporal method of analysis, I venture to retell the story in my own language and in tabloid form as follows, ... (Robertson, 1940, pp. 117-8)

Such ‘dynamics’ became part of the Keynesian depiction. At the same time the use of process analysis and the assumption of constant prices have overshadowed the actual dynamics of the *General Theory*. For Keynes, the multiplier was primarily an instantaneous relationship in the context of the theory of aggregate demand (see Chapter 10):

It is obvious that an initiative of this description [an increase in the output of the capital-goods industries] only produces its full effect on

employment over a period of time. I have found, however, in discussion that this obvious fact often gives rise to some confusion between the logical theory of the multiplier, which holds good continuously, without time-lag, at all moments of time, and the consequences of an expansion in the capital-goods industries which take gradual effect, subject to time-lag and only after an interval. (CW VII, p. 122)

The process of interest that followed an increase in demand, or more specifically of investment, was the response of other industries to the increase in purchasing power in the economy. These industries are faced with the basic choice of increasing quantity or price, or both; these are the choices of relevance to the determination of output and hence the employment equilibrium of the system. Whatever the resolution, the multiplier relation dictates that income must always be equal to the value determined by this relation. The short-period dynamics of the *General Theory* are due to changes in allocation between output and price over time. More generally, such a dynamic is set into motion not just by an exogenous change in demand but one due to changes in the rate of interest, *mec* and *mpc*. Keynes used the multiplier *equation* to derive the change in aggregate demand given a change in investment and the *mpc*. The relation thus has a fundamental role, but a role that is different from the traditional interpretations. (In terms of the logic adopted in this thesis, the discussion of aggregate demand and hence the multiplier comes after a discussion of the theory of liquidity preference.)

With the Keynesian version set aside, it is however possible that the multiplier was important to the development of the *General Theory* in a more subtle manner. Kahn's (1931) original paper discusses how an increase in public expenditure is self-financing through a process that he attributed to J. E. Meade as 'Mr Meade's relation'. In this way Kahn and Meade were considering the relation between saving and investment through the perspective of government expenditure and the multiplier, just as Keynes was doing so through the perspective of wider macroeconomic aggregates. No published material sets the two approaches against each other fully, although two comments on the part of Kahn are worth noting:

After all, 'Mr Meade's relation' is the forebear of 'savings=investment'. (Kahn to Harrod, 1 November 1934, Harrod, 2003, letter 391)

Of course what we had done – but failed completely to realise – was, by a very roundabout method, to establish the identity of saving and investment – if saving is defined on commonsense lines rather than those of the *Treatise*. (Kahn, 1984, p. 99)

Kahn's (1931) paper derived these effects through the geometric progressions that have ended up defining the technique of process/sequence analysis advocated by Robertson. In recent years several authors have used these techniques to illustrate how an increase in investment brings about an equal increase in saving. Meade restated his relationship in the *EJ* in 1992; Chick (1997, p. 177) used the technique to illustrate the role of new deposits in preserving the saving-investment identity, having previously showed how the identity is preserved at every stage of the multiplier process (Chick, 1983, pp. 257-63).

8.8 Post-publication debate

The saving-investment identity was debated extensively after the publication of the *GTOEIM*. The nature of the discussion was however deeply unsatisfactory: more about the assertion of the neo-classical models than an attempt to understand Keynes's own theory. There were two main strands: first, assertion that the identity was a matter of definition. Such a perspective followed from the claimed equivalence of loanable funds and liquidity preference. If the theories were equivalent then the different presentations of the saving-investment relationship must be a matter of definition. The second strand was the bald statement of the neo-classical equilibrium relationship as if it were due to Keynes. The actual validity of Keynes's version of the identity was not explicitly rejected in any review; as a consequence, Keynes had no real critique to get his teeth into. In the main he appears to have left the response to other colleagues, with Kahn, Townshend and Abba Lerner making important contributions. Ultimately, the nature of the debate was such that no resolution was possible.

Hicks's and E. A. G. Robinson's reviews, for respectively the *EJ* and *The Economist*, illustrate each of the perspectives:

Probably the most striking, to a casual reader, of the theoretical doctrines of this book is that which proclaims the necessary equality of Savings and Investment. This looks like a decided recantation of one of the most fundamental principles of the *Treatise on Money*, but inspection shows that it is nothing of the sort. It is merely a change in definition – but a change in definition which marks a very important change in point of view. (Hicks, 1936, reproduced in Backhouse, 1999, p. 142).

In equilibrium, then, saving must equal investment. If these two tend to be unequal, the level of activity will be changed until they are restored to equality. But the restoration of equality does not depend upon any particular rate of interest. If the rate of interest is kept high, so that channels for profitable investment are few, the level to which savings, incomes and output will be forced to descend will be correspondingly lower. The fact that savings tend to exceed investment does not, in Mr Keynes' view, in itself reduce the rate of interest directly, ... (Robinson, 29 February 1936 reproduced in Backhouse, 1999, pp. 75-6).

No response to Hicks's comment is recorded. Hugh Townshend felt obliged to address Robinson's version in a follow-up letter to *The Economist*:

... there is one rather fundamental theoretical point relating to the vexed question of savings and investment which is left a little obscure. Your reviewer says: [as above] ...

But if investment be defined, as it is by Mr Keynes (pages 62 and 52) as including additions to entrepreneurs' stocks of finished goods (consumption-goods as well as capital-goods), saving is *always* equal to investment, whether in "equilibrium" or not, and cannot "tend" to be unequal to it. (*The Economist*, 21 March 1936)

Keynes and Townshend exchanged correspondence after the publication of Townshend's letter. Keynes's comments clearly illustrate his attitude to the review (as well as attributing the output-adjustment perspective to Hawtrey):

I was uneasy about the passage in *The Economist* review to which you refer and am very glad that you have dealt with it.

The main point with which you are dealing is concerned, of course, with the difference between Hawtrey and myself. I gave a good deal of consideration as to whether I should deal with it explicitly, and perhaps I was wrong to decide not to do so. (CW XXIX, pp. 238-9)

In the US, Hansen took a definitional position and argued further that Keynes's own definitions led him to error. He explicitly set the output-adjustment position against the *GTOEIM* and went on to argue that Keynes was in error because he did not take into account loanable funds considerations. Furthermore this 'leading Keynesian' explicitly stated that he preferred Robertson's position, footnoting Robertson's 1933 *EJ* article to the following:

At this point it becomes necessary to inject a brief consideration of terminological difficulties. In the new book Keynes formally abandons his former highly artificial definition of income and saving. But his new terminology is by no means wholly satisfactory. In the writer's opinion his entire exposition would have been very greatly facilitated had he adopted outright Robertson's definitions of income, saving, and investment. This would have made it far easier for him to make clear the factors of disequilibrium. For Robertson's terminology enables one to see very clearly the disequilibrating effects of hoarding and dishoarding and of credit creation and debt cancellation. (Hansen, 1938, pp. 20-1)

Needless to say, Robertson himself was prominent throughout the discussion. While his *QJE* review did not address the *nature* of the identity, he undermined the *role* of the identity by addressing a version of events exactly consistent with the Harrod amendment and hence the output-adjustment perspective:

6. One prominent feature in Mr. Keynes' scheme requires further mention – the increased saving generated by the expansion of trade activity. ...

According to Mr. Keynes, it is an error to regard the supply schedule of saving as a determinant of the rate of interest, since the position of this supply schedule itself depends on the level of employment and income, which in turn depends on the position of the demand schedule for saving. There is thus a "gap" in the classical system, which Mr. Keynes claims to close by introducing the rate of interest, as determined by "liquidity preference" and the quantity of money, from outside as a determinant. (Robertson, 1936, pp. 184-5)

Keynes's response did not comment on this aspect of Robertson's critique. Robertson directly addressed the identity as part of the 'alternative theories' dialogue, arguing (with Hansen) that the identity made Keynes fail to appreciate the importance of loanable funds considerations (this will be discussed in Chapter 7). The 'alternative theories dialogue', however, should have helped to clarify the difference between Keynes's and Robertson's positions. Keynes approved of Ohlin's concepts *ex-ante* and *ex-post* and used them in the course of the discussion; in the *General Theory* saving was defined as *ex-post* saving; Robertson's saving was *ex-ante*. In this way, the relationship has a definitional aspect, but the choice of definition makes no difference to Keynes's theory of the identity of *ex-post* saving and investment.¹³

Meanwhile, as Keynes was engaged in the 'alternative theories' dialogue, Kahn was reviewing Haberler's *Prosperity and Depression* (1937) for the *EJ*. His assessment gave prominence to a rejection of Haberler's treatment of saving and investment:

There is, however, one fundamental difficulty running throughout this book, ... We are informed that "the terms 'savings' and 'investment' are used here in the ordinary meaning of the two words" (p. 116 note). If "sums saved are used to liquidate bank credit or are accumulated and hoarded in the shape of cash and idle deposits" (p. 116), there is an excess of saving over investment. ... There is no possibility here of "savings running to waste." Nor can an "excess of investment over saving" be substantiated. Professor Haberler was aware of this difficulty, as is shown by his controversy with Mr. Harrod, published in *Economica* in February 1935, ... [and] the point was raised by some of those economists to whom, as Mr Loveday mentions in his Preface, a first draft of Part I was sent for their comments and criticisms. But nowhere is the difficulty fairly faced; it is simply brushed on one side. "Mr. Keynes' objections," to the doctrine of "forced saving," "are purely verbal" (p. 40 note). "We do not propose to reproduce in great detail these terminological discussions" (p. 197). It is unfortunate that the author has made so little attempt to deal with a difficulty which must prevent many of his readers from attaching any very

¹³ The following statement in a letter to Hawtrey illustrates Keynes's view on whether there is a definitional aspect to his theory: "I should entirely and violently dissent from your statement near the bottom of page 3 that the proposition that investment and saving are necessarily equal is an essential step in my train of reasoning. The train of reasoning does not depend in the least on my particular definitions. There is not the slightest difficulty, as you will readily see on reflection, in re-writing the argument in terms of your own definitions" (CW XIV, p. 16).

definite meaning to the views which he is putting forward. (Kahn, 1937, pp. 671-2)

The similarity between Haberler's and Robertson's position was not lost on Kahn:

It is true that, following the lead of Mr. Robertson (to whose views on this matter, curiously enough, no space is devoted in the earlier portion of this volume), Professor Haberler is here putting forward a definition of saving which, on certain drastic assumptions, is such (though Professor Haberler omits to say so) as to make the difference between saving and investment equal to the change in the quantity of active balances. (Kahn, 1937, p. 675)

In the published response, Haberler simply took the definitional approach:

If, that is to say, we define both saving and investment as the money value of the unconsumed output of the period, then they are always and under all conditions equal, irrespective of whether people hoard or not, for the simple reason that they are the same thing (two symbols for the same magnitude). I assume that Mr. Kahn has these definitions in mind, because they are Mr. Keynes' definitions. What I cannot understand, and what is highly symptomatic of the prevailing confusion, is that he does not simply stop there. Why his unfortunate digression into the field of hoarding and dishoarding? Why not simply say: $S \equiv I$? (Haberler, 1938, p. 326)

A further debate on the issue was published in the *Quarterly Journal of Economics* between August 1937 and August 1939. This series of articles saw a fuller bringing together of the saving-investment relationship and process analysis. The argument was advanced that Robertson's definition of saving was preferable because it allowed matters to be viewed dynamically through this technique. While Lerner made robust contributions on Keynes's behalf,¹⁴ the concluding article endorsed this dynamic 'resolution' to the debate: "Those who think of things as happening in a certain order of time ... will prefer Robertson's concepts. Those who think of things, not in the process of happening but after the

¹⁴ The following passage in Skidelsky's biography of Keynes is likely to refer to this debate (but no specific references are provided): "As for Miss Myra Curtis (subsequently Mistress of Newnham), who had written something on money, [a textbook with Hugh Townshend, 1937][quotes Keynes:] 'the poor girl seems to have taken complete leave of her senses. I am writing to Lerner to suggest that he might deal with it ... in a couple of pages'" (Skidelsky, 2000, p. 7). The relevant papers are (I think; Skidelsky does not say): Curtis (1937) and Lerner (1938a).

event, will favour Keynes's terminology" (Lutz, 1939). (The wider charge that the *General Theory* described a static system was based on its not incorporating process analysis. The charge is of course nonsense; as discussed earlier, the dynamics are just different.)

Lastly, Robertson introduced one more angle. He argued in his (1940) *Essays in Monetary Theory* that the size of the 'debate' was indicative of the weakness of Keynes's stance:

Since this saving-"investment" identity has played such a large part in the discussions of the last few years, I must be forgiven a brief digression on it here. I wish I could feel that its expositors were *continuously* as conscious as at times they profess themselves to be that it is completely nugatory (to use a favourite work of Mr. Hawtrey's) for purposes of causal analysis as distinct from statistical calculation. ... Hence they are enabled to close their eyes to the absurdity of even enquiring what the forces are which "ensure equality" between the two magnitudes ... This lack of firmness in the handling of their own concepts convinces me that Mr. Keynes and his expositors are not altogether comfortable in the terminological garments that they have elected to wear. (Robertson, 1940, pp. 5-6)

As noted in Chapter 3, if Keynes responded to this critique, it is not recorded. Perhaps he considered the war more important.

8.9 The 'resolution' of the debate

In the 'Preface' to the French edition of his book (dated 20 February 1939), Keynes paid special attention to the relationship between savings and investment. His comments are indicative of a growing recognition of the profound importance of the identity and equally of an emphatic rejection of arguments put by others:

... a relationship is set up between aggregate savings and aggregate investment which can be very easily shown, beyond any possibility of reasonable dispute, to be one of exact and necessary equality. Rightly

regarded this is a banale conclusion. But it sets in motion a train of thought from which more substantial matters follow. (CW VII, p. xxxiii)¹⁵

His last full statement of his theoretical position (at the NDE) saw Keynes again using the identity to reject the classical theory of interest:

Rate of interest determines equilibrium between savings and investment. If people become more willing to save and therefore willing to accept a lower rate of interest, a corresponding increase of investment takes place. Thus a greater willingness to save causes and is indispensable to more investment. Here virtue of saving. Doubt about this due to

(a) It did not fit the facts. For in this case there could never be general, as distinct from frictional and seasonal unemployment, i.e. there would always be a sufficiency of jobs offering for it would mean that whatever was earned was spent so that business as a whole would always cover its costs (subtleties here, I will not stop to explain)

(b) It was logically pure nonsense for [because] $S=I$ at all rates of investment. Y either definable as $C+S$ or as $C+I$. S and I were opposite facets of the same phenomenon they did not need a rate of interest to bring them into equilibrium for they were at all times and in all conditions in equilibrium. (CW XXVII, pp. 388-9)

A year after this statement of his theory, Keynes was dead. With a helping hand from Robertson, his position was lost with astonishing rapidity. Kahn records how Robertson dismissed Keynes's position and re-asserted his own position and in the 'Preface' to the 1949 edition of *Banking Policy and the Price Level*:

While Keynes must at the time have understood and acquiesced in my step-by-step method, it is evident that it never, so to speak, got under his skin; for in his two successive treatments of the savings-investment theme in his two big books he discarded it completely. This was naturally a great personal disappointment to me; and it is, I think, being increasingly recognised that it was also a misfortune for the smooth progress of theory. I do not think that anybody who had really grasped the method of the Appendix to Ch[apter] v of this book need have been puzzling in the head in 1930 over the problem of 'where the savings went to', or have stood in need of the crowning revelation that 'savings' and 'investment', if defined so as to be identical, are indeed always necessarily equal, – a phenomenon

¹⁵ Kahn reproduces elements of the same discussion on savings and investment, observing: "This is a far more fruitful exposition of the meaning of the word 'general' – the result of three years of discussion and thought" (Kahn, 1984, p. 121).

which was the starting-point, not the culmination, of the analysis attempted in this little book! (cited in Kahn, 1984, p. 63)

Writing Keynes's contributions out as 'misfortunes', Robertson hence re-aligned theory to his own position in 1924. In broad terms, during the 'Keynesian era' the Keynesian interpretation of the relation held sway. As time went by, the Keynesian model was attributed to Keynes himself. With the dismissal of Keynesianism, the saving-investment equilibrium adhered to by the classics was restored. Chick's restoration of the identity (originally in 1985) in the context of the evolution of banking, that underpinned the discussion of the nature of the identity in section 2, remains of no interest to the wider profession. Her restoration has followed the fate of the original: not refuted just set aside. With Keynes's whole theory building from this identity, the effect of setting it aside is to set aside the *General Theory*.

Chapter 9

The Theory of Liquidity Preference

9.1 Introduction

With the opening provided by the saving-investment identity, the theory of liquidity preference was the central component of Keynes's theory. Keynes turned his attention from money as a means of exchange to money as a store of value. His analysis led him not only to the theoretical treatment of uncertainty and expectation, but also to practical conclusions of the most profound importance. Ultimately the theory turned classical analysis on its head. The rate of interest was the cause, not the passive consequence, of the level of economic activity. Moreover, as a quantity that depended on expectation, the authorities – if so desired – had full control of the rate of interest that prevailed in a national economy. The relevant considerations were monetary, debt management and international financial policies. The policies that were developed during the 1930s and W.W.II are examined in section 9.5.

While it was possible to trace the development of the saving-investment identity, there is virtually no correspondence or other information concerning the development of the theory of liquidity preference. The main markers have already been discussed: the emphasis on the rate of interest in the *Treatise*, the 1932 *EJ*

symposium, 'Savings and Usury', the 1932 Festschrift for Professor A. Spiethoff concerning the need for a monetary theory of activity as a whole and, the November 1933 lecture notes rejecting the classical theory of interest. There is no discussion of the theory as it developed; published correspondence begins after the work was in proof form. Furthermore, the dialogue that does exist is almost entirely concerned with controversy. Just as liquidity preference was the central component of the *General Theory*, it was the central component of his rivals' assault. This began with the proofs and continued through the reviews into the fuller 'alternative theories' debate; the assault did not stop until after the war had begun. The assault was two sided: first, criticising liquidity preference for inadequately treating 'loanable funds' considerations and second, asserting the equivalence of loanable funds and liquidity preference. The attack was at least well aimed. Keynes's theory of liquidity preference was primarily a theory of money as a store of value, but, in the interests of simplicity, Keynes incorporated aspects of a theory of exchange. In the 'alternative theories' dialogue, Keynes sought to make amends using a distinction between *inactive* and *active* holdings of money.¹ Even then, his treatment was not entirely satisfactory and not the full reconciliation between the theories that was required. That is not, on the other hand, to argue that his theory and associated conclusions were wrong. The subsequent debate led to Keynes making concessions, but concessions he regarded as only serving to re-enforce his original theory. But, of course, his rivals were not interested in Keynes's reconciliation. And despite proof of the validity of the theory as a whole with the setting of wartime interest rates at three per cent, liquidity preference was set aside. The properties of the Keynesian treatment of liquidity preference within *IS-LM* were loanable funds properties. The literature discussed shows this should come as no surprise: Hicks was involved in this specific assault on liquidity preference from the start.

¹ "In my terminology *liquidity preference* relates to the *total* demand for money for all purposes and not merely to the demand for inactive balances. Quite often one needs to distinguish the demand for active balances and the demand for inactive balances. At one time, indeed, I did try to use separate terms and drafted for about a year on these lines. But I found that in making general statements this involved an enormous amount of verbiage; and in the end I defined liquidity preference as above for general exposition, making the further distinction between inactive and active demand when required" (CW XIV, p. 223).

Even those post-Keynesians who have seen through this charade have not gone far enough with their restoration of liquidity preference.² The debate remains excessively skewed to loanable funds considerations. More fundamentally, though, a restoration of the role of expectations in liquidity preference has not yet seen its way to Keynes's conclusion that expectations can be manipulated and interest brought under control. The positive discussion that follows attempts to set out the theory of liquidity preference, with emphasis on the role of expectation, a fuller treatment of the incorporation of the theory of money as a means of exchange within the same framework, and lastly on practical policy. Inevitably the negative discussion is an exposition of the Keynesian assault and 'resolution'.

9.2 The demand for and supply of money as a store of value

Keynes's theory of liquidity preference argued that the rate of interest was not a reward for parting with *savings* but a reward for parting with *liquidity*. His first discussion of the concept comes in Chapter 13, 'The General Theory of the Rate of Interest':

But this decision having been made, there is a further decision which awaits him, namely, in *what* form he will hold the command over future consumption which he has reserved, whether out of his current income or from previous savings. Does he want to hold it in the form of immediate, liquid command (i.e. in money or its equivalent)? Or is he prepared to part with immediate command for a specified or indefinite period, leaving it to future market conditions to determine on what terms he can, if necessary, convert deferred command over specific goods into immediate command over goods in general? In other words, what is the degree of his *liquidity-preference* – where an individual's liquidity-preference is given by a schedule of the amounts of his resources, valued in terms of money or wage-units, which he will wish to retain in the form of money in different sets of circumstances? (CW VII, p. 166)

While this definition comes at matters through the perspective of a saving decision, liquidity preference is a decision that arises after the decision to save

² Bibow appears to hint rather heavily though (e.g. Bibow, 2000, p. 823).

has been made. Liquidity preference is the decision about the degree of liquidity at which savings should be held. Furthermore, it is a decision concerning the stock of savings at any point in time – *wealth* – rather than any new flow of saving alone. The rate of interest is hence not determined by the supply of and demand for (flows) of saving, but by the supply of and demand for assets into which holdings of (stocks) of wealth can be placed. The theory of money as a store of value understands money as one of these assets. Keynes's first formal definition of the equilibrium for the rate of interest is as follows:

The rate of interest is not the 'price' which brings into equilibrium the demand for resources to invest with the readiness to abstain from present consumption. It is the 'price' which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash; (CW VII, p. 167)

Kahn's *Making of the General Theory (MOTGT)* discussion of liquidity preference chooses a quotation from later in the book:

The basic concept is simple, and so familiar that I need not devote much space to it. Later in the *General Theory* Keynes put it thus:

the current rate of interest depends, as we have seen, not on the strength of the desire to hold wealth, but on the strengths of the desire to hold it in liquid and illiquid forms respectively, coupled with the amount of the supply of wealth in the one form relatively to the supply of it in the other. [KEYNES, vol. VII, p. 213] (Kahn, 1984, p. 137)

Keynes's presentation of the theory of liquidity preference saw him seemingly giving money the central role. Kahn's choice of quotation, however, more fully captures the more general nature of liquidity preference theory. Liquidity preference should be thought of as reflecting the demand for assets of various degrees of liquidity, and the rate of interest depends on both the demand of and supplies for assets across the whole of this spectrum. Money, however, does have a particularly crucial role; while it is obvious that illiquid assets offer holders a reward in the form of interest, the reward for holding money was the essence of liquidity itself. Furthermore, it was a shortage of 'money' that most stood in the way of practical interest rate policy.

Keynes's discussion emphasises that at first sight the desire to hold wealth as money was paradoxical: "... why should anyone prefer to hold his wealth in a form which yields little or no interest to holding it in a form which yields interest ...?" (CW VII, p. 168). He was more emphatic in the 1937 *QJE* paper:

Money, it is well known, serves two principal purposes. By acting as a money of account it facilitates exchanges without its being necessary that it should ever itself come into the picture as a substantive object. In this respect it is a convenience which is devoid of significance or real influence. In the second place, it is a store of wealth. So we are told, without a smile on the face. But in the world of the classical economy, what an insane use to which to put it! For it is a recognised characteristic of money as a store of wealth that it is barren; whereas practically every other form of storing wealth yields some interest or profit. Why should anyone outside a lunatic asylum wish to use money as a store of wealth? (CW XIV, pp. 115-16)

The *GTOEIM* resolved the paradox as follows:

A full explanation is complex and must wait for chapter 15. There is, however, a necessary condition failing which the existence of a liquidity-preference for money as a means of holding wealth could not exist.

This necessary condition is the existence of *uncertainty* as to the future rate of interest, i.e. as to the complex of rates of interest for varying maturities which will rule at future dates. (CW VII, p. 168)

Keynes argued that the necessary condition for liquid holdings of savings was the fact that people did not know what the future rate of interest would be; it was *uncertain*. The nature of uncertainty has already been discussed in section 2.1, but merits elaboration in this specific context. In the market for liquidity, uncertainty operates through the capital value of assets. A holding of government bonds will change in value as expectations towards the future rate of interest change. In the case of the expected rate of interest rising, the market value of a holding of bonds will fall. The factors that determine this expected rate of interest will be discussed more fully in due course; for the time being it is sufficient to note that (i) no agent knows the value of the future rate of interest with certainty; and (ii) there will be a distribution of opinions at any point in time and this distribution will change over time.

In this way, Keynes's famous motives for holding 'money' should primarily be seen as reflecting his interpretation of how uncertainty gave rise to a demand for money. Exactly what was meant by 'money' will also be examined shortly; for the time being it is sufficient to define money in the context of this discussion: as an asset with a certain (or nearly certain) capital value. This is set against a demand for bonds of uncertain future capital value. In *GTOEIM* he summarises the 'three motives' as follows:

(i) the transactions-motive, i.e. the need of cash for the current transaction of personal and business exchanges; (ii) the precautionary-motive, i.e. the desire for security as to the future cash equivalent of a certain proportion of total resources; and (iii) the speculative motive, i.e. the object of securing profit from knowing better than the market what the future will bring forth. (CW VII, p. 170)

While this characterisation is familiar, it offers a first sight of the conflict between the theory of money as a store of value and considerations due to money as a means of exchange. Transaction demands arise through exchange not store of value requirements. Later, the confusion is compounded by Keynes's treatment of transactions and precautionary demands together as a single function of income.

The motives can be analysed to derive the money demand or liquidity preference schedule. The schedule is reasonably shown as a concave curve with the rate of interest (price) on the y-axis and money (quantity) on the x-axis (Figure 9.1). While it might usefully be depicted algebraically, doing so is presentational not mathematical. The dependence of the liquidity preference schedule on expectation (see discussion below) means that an algebraic representation cannot be manipulated as one of a set of simultaneous equations in the way that it has. This was perhaps only ever broached in Keynes's lectures; Rymes observes that:

In this lecture, in almost all the notes we find

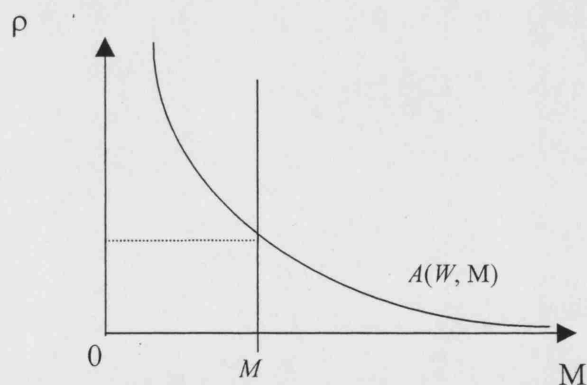
$$M=A(W, \rho)$$

where $A(W, \rho)$ is the demand for money to hold in relation to income and is expressed as a function of the state of the news, W , and the rate of interest, ρ , with M being the stock supply of money.

All the notes concentrate on the three determinants of the rate of interest, A , liquidity preference, itself a function of the state of the news W and the quantity of money, M – that is, A , W and M are being treated as exogenous! Again, the notes reflect the continued inference of Keynes that expressions such as $M=A(W, \rho)$ are *not formal relationships but rather methods of thought*. The listeners were sometimes disconcerted by such philosophical grazing by Keynes. In Tarshis's notes at this point we find: 'What the Hell'. (Rymes, 1989, pp. 24-5, my emphasis)³

Using this notation, Figure 9.1 would be an appropriate depiction for the equilibrium determining the rate of interest (and I have reversed ρ and M in line with standard supply and demand presentation):

Figure 9.1: Basic liquidity preference



Keynes dropped this notation for *GTOEIM*, and no longer incorporated any shorthand for the state of the news. While it is absurd to argue that his dropping of the shorthand meant that Keynes had disregarded the role of expectations in the theory of liquidity preference, there can be no question of the validity of Kahn's point (section 4.2 and 5.7) that Keynes's occasional use of unqualified algebraic

³ There are questions too concerning whether liquidity preference can be represented in graphical form, given the existence of uncertainty. In my view, the portrayal brings out important properties without violating common sense, which must surely be the aim of theory.

shorthand and his letting go as others built on this technique was a serious problem.

In *GTOEIM*, Keynes argues that the concave shape of the schedule was due to both the speculative and transactions motives. For the time being the role of the transactions motive is left aside, first because of the emphasis on the wealth aspect of liquidity preference and, second because the speculative demand is crucial in terms of the transmission of monetary policy in a way that the transactions is not.

Speculators hold bonds or money according to their expectations about the future rate of interest. If they expect a rise in the rate of interest they are therefore expecting a fall in the price of bonds and they will therefore hold all wealth that they use for speculation as money (this may of course involve selling holdings of bonds). When they expect the rate of interest to fall again, the same individuals will use inactive speculative money holdings to purchase bonds. Thus the demand for money changes according to the expectations of the future rate of interest. As noted, uncertainty is involved because market participants do not know – either individually or collectively – what the future rate of interest will be. Participants in the speculative market will only have opinions as to the future rate of interest. While these opinions will be held with varying degrees of conviction (as Chick, 1983, p. 204 has emphasised), the nature of speculation is such that speculators have to act *as if* they are certain.⁴ The aspect of speculative demand that determines the concave shape of the schedule is the *distribution* of these opinions at any point in time.

In *GTOEIM*, Keynes discusses the distribution of views as being based around a ‘safe’ rate of interest:

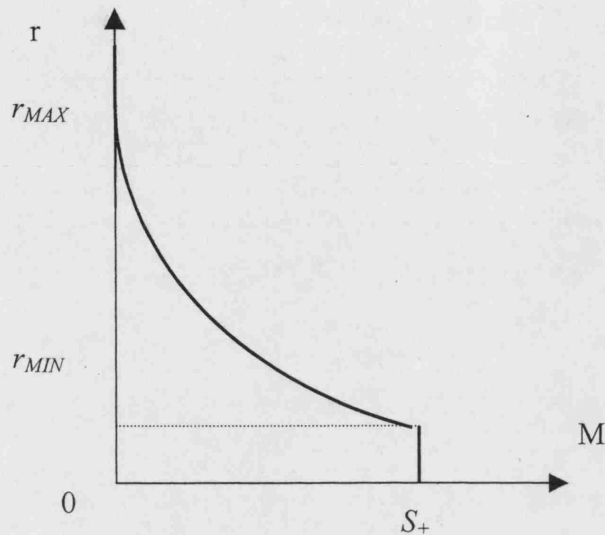
⁴ Though the size of the amounts of money involved may change according to the degree of conviction.

It follows that a given M_2 [the quantity of money held to satisfy the speculative motive] will not have a definitive quantitative relationship to a given rate of interest of r [the rate of interest]; – what matters is not the *absolute* level of r but the degree of divergence from what is considered a fairly *safe* level of r , having regard to those calculations of probability which are being relied on. (CW VII, p. 201)

A short discussion led to the conclusion that “in any given state of expectation, a fall in r will be associated with an increase in M_2 ” (CW VII, pp. 201-2). However his argument did not depict the process of speculation in theoretical terms. Chick’s (1983, pp. 204-208) derivation of the shape of the liquidity preference schedule provides the missing analysis. Rather than a safe rate of interest, her argument centres round a ‘normal’ rate of interest: “[e]ach speculator, i , has an expectation of a ‘normal’ rate of interest, r_{iN} , toward which the actual rate of interest, r_t , tends to return” (Chick, 1983, p. 204). She describes how individual speculators hold bonds or money depending on the sign of the difference between r_t and r_{iN} . The liquidity preference schedule is derived as a cumulative distribution function of individual speculator’s expectations of the rate of interest and the funds they have set aside for speculation. The schedule is concave between $r_t = r_{MIN}$, where all speculators expect a rise in the rate of interest and hence all speculative resources S_+ are held as money; and $r_t = r_{MAX}$, where all speculators hold bonds (Figure 9.2).⁵

⁵ “At the extremes of high and low rates of interest, opinions coalesce; there comes to be substantial agreement that rates cannot rise any further, or fall any further. This is enough to give the speculative demand function its concave shape” (Chick, 1983, p. 206).

Figure 9.2: The speculative demand for money



Chick (1983, p. 204) argues that “Keynes did not discuss how the normal rate was estimated”. She elaborates:

The suggestion that the normal rate is generated by some adaptive learning mechanism based on past interest rates would, I think, be rejected by Keynes. Of course speculators learn from the past, and a long history of low rates is bound to lower the normal rate; but speculators undoubtedly use more than past history to derive r_N [r_{iN}]. (Chick, 1983, p. 211)

The central argument of this thesis goes beyond this description: Keynes was pre-supposing action aimed at the manipulation of the rate of interest. Anticipating matters that are more fully addressed later in this chapter, this action meant attempting to manipulate individuals’ normal rates to be in line with a rate on long-term debt that the authorities want to set, r_{policy} . The ideal situation would be that $r_i = r_{policy} = r_{iN}$, for all i and t . At this point there would be no speculation (speculative funds would be held as bonds, given the flow of interest income). Setting interest rates does not, however, rely on achieving this equalisation of normal rates, but does rely on ensuring a sufficient supply of money to meet the demand of speculators at r_{policy} .

Before looking in more detail at Keynes's description of expectations and policy, the contribution of the precautionary motive to the demand for money wealth needs to be examined. In the *GTOEIM*, Keynes offers two definitions of the precautionary demand:

... the precautionary motive, i.e. the desire for security as to the future cash equivalent of a certain proportion of total resources; (CW VII, p. 170)

To provide for contingencies requiring sudden expenditure and for unforeseen opportunities of advantageous purchases, and also to hold an asset of which the value is fixed in terms of money to meet a subsequent liability fixed in terms of money, ... (*ibid.*, p. 196)

These go further than the standard notion of reserving money for unexpected expenditure opportunities (e.g. bargain music system) or necessities (e.g. repairing a leaking roof). The *general* form of the precautionary motive is the desire to hold money through fear of capital loss on selling a long-term bond before maturity term. There are then any number of *reasons* that wealth might be required in cash before the maturity date. These reasons can be sub-divided further according to whether they are for *expected* or *unexpected* events. Examples of unexpected events dominate in the literature; expected events (e.g. school fees in five years time)⁶ have received less emphasis. The balance between the demands due to expected and unexpected events is, however, not important for the theory of liquidity preference. What is important is to recognise that, as a consequence of the precautionary motive, there will be a far wider demand for money holdings of wealth than that solely due to speculators. This demand for money in turn must be incorporated into the liquidity preference schedule.

As noted, Keynes brings together the transactions and precautionary demands as a function of income:

⁶ While Chick (1991) has emphasised that in a modern economy expected events can be dealt with via maturity matching, under the simplifying assumptions of a choice only between a long bond and money (as used for the discussion of the speculative motive), the precautionary motive leads to a money demand.

Let the amount of cash held to satisfy the transactions- and precautionary-motives be M_1 , and the amount held to satisfy the speculative-motive be M_2 . Corresponding to these two compartments of cash, we then have two liquidity functions L_1 and L_2 . L_1 mainly depends on the level of income, whilst L_2 mainly depends on the relation between the current rate of interest and the state of expectation. Thus

$$M = M_1 + M_2 = L_1(Y) + L_2(r)$$

Where L_1 is the liquidity function corresponding to an income Y , which determines M_1 , and L_2 is the liquidity function of the rate of interest r , which determines M_2 . (CW VII, pp. 199-200)

It is fairly obvious that precautionary holdings of money are likely to be higher with higher income, but not in a manner that is particularly interesting or important – the same is true of speculative holdings. It is therefore sensible, as with the speculative demand, to examine matters with income taken as given. In the *GTOEIM*, Keynes rules out sensitivity to interest as an assumption (“... assumed to absorb a quantity of cash which is not very sensitive to changes in the rate of interest...”, CW VII, p. 171). Kahn (1954, p. 246) examined the matter in some detail and legitimised Keynes’s technique. The more interesting determinant of the precautionary demand is the state of expectation. At times of concern about the future (these might be cyclical or due to policy ambiguity) there will be a tendency for higher holdings of cash; conversely, in stable times, there will be a tendency for higher holdings of bonds. With given income, the precautionary motive shifts the schedule based on the speculative demand to the right according to the level of the precautionary demand. In this way, the schedule of the demand for money as a store of value could be more helpfully depicted as

$$L(r) = L_S(M, \epsilon_s / Y) + L_P(\epsilon_p / Y) \quad (9.1)$$

where the subscripts indicate speculative and precautionary and ϵ denotes the state of expectation

To summarise, the precautionary demand is closely related to the speculative demand; holding precautionary assets as money to avoid capital loss is a type of speculative action, although the motivation is different (to avoid loss from

adverse changes in the future rate of interest rather than to attempt to profit from *expected* favourable changes in the future rate of interest). Both Kahn (1954) and Joan Robinson (1951) developed the discussion of liquidity preference in this direction after Keynes's death. Much later, Kahn (1984, p. 18) described the distinction between the speculative and precautionary motives as "very blurred". It is particularly blurred at low rates of interest, when capital losses are almost universally expected.

Keynes paid less attention to the supply of money in the *GTOEIM*. So far here (Section 9.2), the supply of money has been defined as liquid assets into which holdings of wealth can be placed as an alternative to long-term bonds. A fuller discussion requires revisiting the nature and definition of money. In *GTOEIM*, Keynes's main discussion was (indicatively) confined to a footnote:

... [W]e can draw the line between 'money' and 'debts' at whatever point is most convenient for handling a particular problem. For example, we can treat as *money* any command over general purchasing power which the owner has not parted with for a period in excess of three months, and as *debt* what cannot be recovered for a longer period than this; or we can substitute for 'three months' one month or three days or three hours or any other period; or we can exclude from *money* whatever is not legal tender on the spot. It is often convenient in practice to include in *money* time-deposits with banks and, occasionally, even such instruments as (e.g.) treasury bills. As a rule, I shall, as in my *Treatise on Money*, assume that money is co-extensive with bank deposits. (CW VII, p. 167 n1)

The problems again are related to the incorporation of money as a means of exchange into a theory of money as a store of value. At first sight the supply of 'money' is different according to each of these perspectives. As discussed in Chapter 7, the theory of money as a means of exchange (or of active money) concerns the creation of and day-to-day transactions in bank money. In contrast, the theory of money as a store of value (inactive money demands) concerns matters that occur *after* the creation of bank money (Dow, 1997). Inactive money demands are demands for *liquid assets* into which holdings of wealth can be placed as an alternative to illiquid bonds. In general the institutions carrying out the majority of such transactions are not households but financial institutions on

behalf of households. For financial institutions the most important liquid asset is the *bill* – a short-term security (usually three months) of near certain capital value issued by companies or government. The speculation that Keynes discussed takes place in practice between bonds and bills; an increase in the precautionary demand is reflected, in practice, as an increase in the demand for bills relative to bonds. The supply/stock of ‘money’ of most importance to the theory of money as a store of value is hence the supply/stock of bills.⁷ The role of deposits in the theory of money as a store of value is as the medium through which ‘money’ is transferred to the issuer of an asset from the purchaser.⁸ The issuer of the asset is then in a position to spend the money on real activity; the purchaser holds a liquid savings instrument.

This supply of money in the form of bills can then be seen as part of a broader framework. From the perspective of wealth holders, the supply of bills is a specific component of a wider supply of assets across the whole spectrum of liquidity. From the perspective of the issuer, the supply of assets is a supply of debt. In practice, this debt will be issued by companies and government through various instruments (bills, bonds, equities and derivatives), through which they access household savings. The fundamental difference is that in liquidity preference theory households *demand* liquidity for their stocks of wealth, while in the classical model households *supply* a flow of saving. The household *demand* is a demand for liquid or short-term debt instruments that are *supplied* as one element of the borrowing instruments of firms and government. From this perspective firms and governments need only pay any rate of interest for loans if they supply insufficient short-term assets (leaving aside risk considerations and administrative costs). The reality is that the interaction is mutually beneficial: households need to find an outlet for their savings and businesses and governments need finance and funding.

⁷ While cash is the obvious liquid asset, in practice, holdings of wealth in cash are likely to be of trivial size and analytical importance (although matters are different in the separate case of a bank run).

⁸ Complications arising from the use of deposit accounts for savings purposes and short-term assets for speculative purposes are analysed by Chick and Dow (2002).

In the same way, it is not through the stock of deposits that the authorities are able to manipulate 'the' long-term rate of interest, but through the supply of bills or other contrived liquid assets (e.g. special deposits created by the central bank).⁹ The policy regarding the issue of various debt instruments on the part of firms and government is the critical aspect of the supply of 'money' in terms of interest rate policy. And liquidity preference therefore leads to debt management policy. First, however, the supply of and demand for 'money' have to be brought together to give equilibrium.

9.3 Expectation, equilibrium and policy management

In the theory of liquidity preference the rate of interest on bonds is determined by an equilibrium between the existing stock of money and the associated demand. Expectations play a crucial role in the context of both the equilibrium so established and the authorities' ability to manipulate that equilibrium. While the role of expectations has been addressed in order to derive the liquidity preference schedule, the discussion to this point has been static. A liquidity preference schedule has been derived with a given set of views about the future rate of interest in conditions of uncertainty. What has not been fully addressed is why expectation is one thing rather than another. A more general discussion is required, looking at the *determinants of expectation*, and the *dynamics* of liquidity preference in the light of these determinants.

Keynes's main discussion of liquidity preference in *GTOEIM* covers both the role of expectation and of policy at the same time. As a consequence, the theoretical properties of liquidity preference were revealed in the course of examples of practical policies without making explicit the properties so revealed. Conversely, the practical policy discussion was primarily theoretical and did not strongly assert these monetary policy interventions as the ultimate practical conclusions of the theory. He wrote assuming an understanding that policy action should be

⁹ This leaves aside the complex issues tackled by Chick and Dow (2002) related to the setting of

action aimed at manipulating the long-term rate of interest. A good example is on page 164 of *GTOEIM*, the last page of his chapter on ‘The State of Long-Term Expectation’ and the page *before* he first begins his discussion of the theory of the rate of interest. Here Keynes observes: “[o]nly experience, however, can show how far management of the rate of interest is capable of continuously stimulating the appropriate volume of investment”. I consider that this dual approach resulted in an inadequate depiction of both theory and policy.

Keynes’s exposition of the theory of liquidity preference does not re-state the general determinants of the state of expectation. Instead he relies on the discussion of the determinants of the state of expectation that he set out in the context of the theory of investment demand. This follows his decision to treat the theory of demand before liquidity preference in *GTOEIM*. So while Chapter 12, ‘The State of Long-Term Expectation’, is motivated by the theory of (capital/real) investment, many passages are of equal importance to liquidity preference. In particular, Keynes emphasises the role of the ‘existing situation’ as a guide to the future:

It would be foolish, in forming our expectations, to attach great weight to matters which are very uncertain. It is reasonable, therefore, to be guided to a considerable degree by the facts about which we feel somewhat confident, even though they may be less decisively relevant to the issue than other facts about which our knowledge is vague and scanty. For this reason the facts of the existing situation enter, in a sense disproportionately, into the formation of our long-term expectations; our usual practice being to take the existing situation and to project it into the future, modified only to the extent that we have more or less definite reasons for expecting a change. (CW VII, p. 148)

He emphasises the importance of the ‘spontaneous optimism’ or ‘animal spirits’ to expectations governing investment demand (CW VII, p. 161).

Keynes refers back to this discussion when expectation is addressed in the context of liquidity preference: “Just as we found that the marginal efficiency of capital is fixed, not by the ‘best’ opinion, but by the market valuation as determined by

money market rates involving OMOs that exchange deposits for bills.

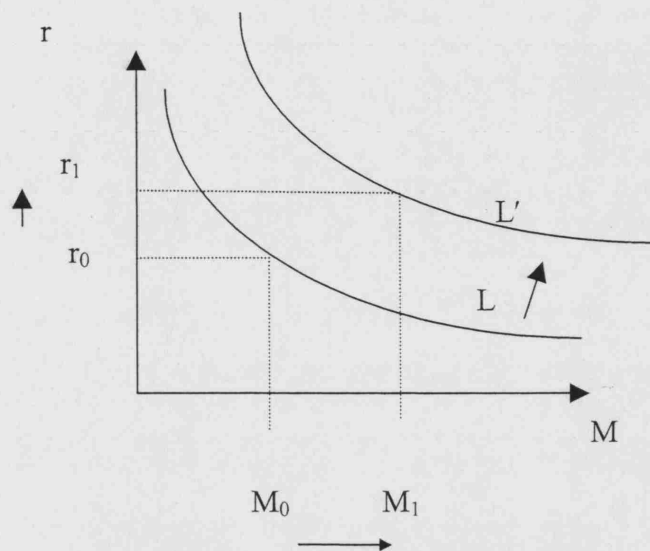
mass psychology, so also expectations as to the future of the rate of interest as fixed by mass psychology have their reactions on liquidity-preference" (CW VII, p. 170). He does not, however, re-assert the idea that the 'existing situation' is an extremely important governor of the view of the future. Instead, Keynes turns straight to the properties of expectations in the context of policy.

Keynes raises first the distribution of opinion in the context of a policy to manipulate the rate of interest by changing the quantity of money: "... if we are to control the activity of the economic system by changing the quantity of money, it is important that opinions should differ" (CW VII, p. 172). The underlying but unstated theoretical proposition is that the distribution of opinion influences the shape of the liquidity preference schedule. Next, developing the same policy, Keynes raises the tremendously important issue of expectations *changing*:

If, however, we are tempted to assert that money is the drink which stimulates the system to activity, we must remind ourselves that there may be several slips between the cup and the lip. For whilst an increase in the quantity of money may be expected, *cet. par.*, to reduce the rate of interest, this will not happen if the liquidity preferences of the public are increasing more than the quantity of money; ... (CW VII, p. 173).

Figure 9.3 illustrates how a change in the money supply from M_0 to M_1 would not reduce the rate of interest if expectations towards the future change and shift the liquidity preference schedule from L to L' ; instead, the rate of interest increases from r_0 to r_1 . It is also notable that Keynes does not describe how this operation takes place. The operation is essentially an open-market operation (OMO), involving the government or monetary authority issuing short-term debt in exchange for long-term debt. The operation changes the nature rather than the amount of the government's liability to the private sector.

Figure 9.3: Open-market operations and changing expectations



To re-iterate, this discussion was the first time the notion of changing liquidity preference was introduced; Keynes takes it as given that such shifts can occur. In retrospect it is clear that the point demanded more emphasis. In the *GTOEIM*, Keynes then left his theory in order to address the classical theory of interest (Chapter 14). He returned to his own theory in Chapter 15, where he addressed the motivations for liquidity in more detail. In the course of a further examination of the speculative motive, he looked again at the theme of shifting liquidity preference in the context of open-market operations:

But it is by playing on the speculative-motive that monetary management (or, in the absence of management, chance changes in the quantity of money) is brought to bear on the economic system. ...

In dealing with the speculative-motive it is, however, important to distinguish between the changes in the rate of interest which are due to changes in the supply of money available to satisfy the speculative motive, without there having been any change in the liquidity function, and those which are primarily due to changes in expectation affecting the liquidity function itself. Open-market operations may, indeed, influence the rate of interest through both channels; since they may not only change the volume of money, but may also give rise to changed expectations concerning the

future policy of the central bank or of the government. Changes in the liquidity function itself, due to a change in the news which causes revision of expectations, will often be discontinuous, and will, therefore, give rise to a corresponding discontinuity of change in the rate of interest. (CW VII, pp. 196-8)

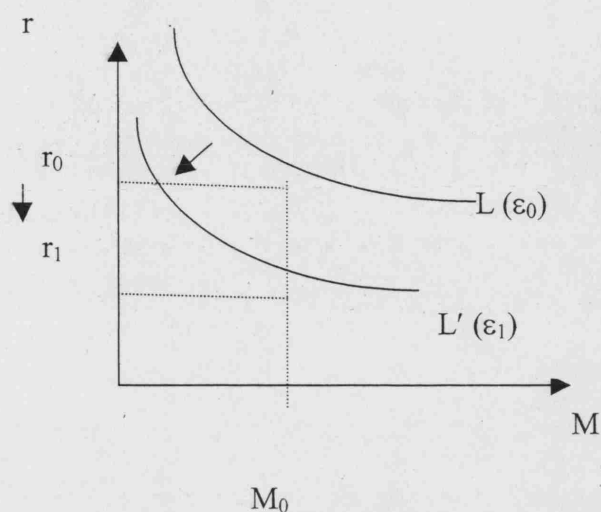
Here Keynes talks about the changes in the liquidity function in the context of policy without specifically advocating these policies. The passage may also be partly responsible for wider confusion about Keynes's monetary policy. The emphasis is strongly on OMOs; there is no discussion of direct manipulation of expectations. The discussion might be interpreted as implying that changing expectations are simply 'accidental'. However, his next comments, while still not entirely unambiguous, must surely imply very strongly that changes in expectation might be a response to deliberate manipulation:

If the change in the news affects the judgement and the requirements of everyone in precisely the same way, the rate of interest (as indicated by prices of bonds and debts) will be adjusted forthwith to the new situation without any market transactions being necessary.

Thus, in the simplest case, where everyone is similar and similarly placed, a change in circumstances or expectations will not be capable of causing any displacement of money whatever; ... (CW VII, p. 198)

Nevertheless, Keynes continued to conflate an implied manipulation of the rate of interest (by 'changing the news') with theoretical effects of changing liquidity preference. He is arguing that a reduction of the rate of interest from r_0 to r_1 due to a shift in liquidity preference from L to L' that is deliberately encouraged will leave the demand for money unchanged (figure 9.4).

Figure 9.4: A 'change in the news'



Keynes draws fundamental conclusions about the role of expectations and the role of the monetary authority at the end of the chapter. At this point he is fairly unambiguous about the nature of policy that he has in mind (I have used underscoring to emphasise positive statements; italics are Keynes's emphasis):

It is evident, then, that the rate of interest is a highly psychological phenomenon. (CW VII, p. 202)

But at a level *above* the rate which corresponds to full employment, the long-term market-rate of interest will depend, not only on the current policy of the monetary authority, but also on market expectations concerning its future policy. (*ibid.*, p. 202)

The short-term rate of interest is easily controlled ... But the long-term rate may be more recalcitrant when once it has fallen to a level which, on the basis of past experience and present expectations of *future* monetary policy, is considered 'unsafe' by representative opinion. (*ibid.*, p. 203)

Thus a monetary policy which strikes public opinion as being experimental in character or easily liable to change may fail in its objective of greatly reducing the long-term rate of interest, ... (*ibid.*, p. 203)

It might be more accurate, perhaps, to say that the rate of interest is a highly conventional, rather than a highly psychological, phenomenon. For its actual value is largely governed by the prevailing view as to what its value is expected to be. *Any level of interest which is accepted with sufficient conviction as likely to be durable will be durable*; subject, of course, in a changing society to fluctuations for all kinds of reasons round the expected normal. (*ibid.*, p. 203)

Public opinion can be fairly rapidly accustomed to a modest fall in the rate of interest and the conventional expectation of the future may be modified accordingly; thus preparing the way for a further movement – up to a point. (*ibid.*, p. 204)

Keynes then brought practical experience to bear. He emphasised his first-hand experience of attempts to reduce the long-term rate of interest in Great Britain through the 1930s:

The fall in the long-term rate of interest in Great Britain after her departure from the gold standard provides an interesting example of this; – the major movements were effected by a series of discontinuous jumps, as the liquidity function of the public, having become accustomed to each successive reduction, became ready to respond to some new incentive in the news or in the policy of the authorities. (*ibid.*, p. 204)

Even at this point Keynes has covered essentially *ad hoc* methods of manipulating the rate of interest. As has been argued in Part I, practical experience led ultimately to a full policy to manipulate the rate of interest. This policy involved debt management, manipulation of expectations and the development of banking policy. In Chapter 15 he only hinted at the debt management policy that his theory pointed to:

If the monetary authority were prepared to deal both ways on specified terms in debts of all maturities, and even more so if it were prepared to deal in debts of varying degree of risk, the relationship between the complex of rates of interest and the quantity of money would be direct. (*ibid.*, p. 205)

Perhaps a complex offer by the central bank to buy and sell at stated prices gilt-edged bonds of all maturities, in place of the single bank rate for short-term bills, is the most important practical improvement which can be made in the technique of monetary management. (*ibid.*, p. 206)

Nevertheless, he looked to a more formal and broader application of policies with which – under his influence and/or explicit direction – British authorities were already experimenting: “In Great Britain the field of deliberate control appears to be widening” (*ibid.*, p. 206). Lastly, in addressing the “limitations on the ability of the monetary authority to establish any given complex of rates of interest for debts of different terms and risks” (*ibid.*, p. 207), Keynes was surely unambiguous about the aim of the monetary policy that he had in mind.

While Keynes’s conflating of his discussion of the theoretical nature of liquidity preference with practical policy matters may have served to confuse interpretation of his theory of liquidity preference, once understood, discussing the two dimensions together is really quite natural. Once it has been established that the rate of interest depends on expectations, there are then really only two situations: the ‘norm’, where the past rate of interest dominates, or the ‘deliberate policy’, where the authorities are seeking to manipulate that expectation. It is perhaps paradoxical that so important a conclusion can be so simply expressed.

Keynes’s returned to these matters most fully at the National Debt Enquiry (NDE; the detail is in section 9.5). Given the purpose of this enquiry was to consider the rate of interest policy that should prevail after the war, matters were unambiguous: “The monetary authorities can have any rate of interest they like” (CW XXVII, p. 390). His NDE notes dealt briefly but succinctly with the expected rate of return for surrendering liquidity over the long term: “What determines the return the individual requires to surrender his liquidity for a long or short period. In practice, of course, what some stockbroker who knows nothing about it advises him, or convention based on old dead ideas or past irrelevant experience” (CW XXVII, p. 391). He was showing signs of cynicism, but essentially he argued that individuals expected the return they were told to expect and that, in the absence of any contrary evidence, such expectations would persist. If individuals had received a high reward in the past they would continue to expect a high reward into the future. But he considered such ideas ‘dead’ and any previous experience ‘irrelevant’.

To sum up, interest is not paid as a reward for not spending but is paid as a reward for parting with the liquidity of wealth. Firms and government do not need to encourage households to save for access to their idle resources. If firms and government are willing to borrow on liquid terms then they would not need to pay *any* reward for access to these resources. The only premium necessary is the costs of administering the transaction. Debt management policy allows a sensible and coherent framework for the balancing of firms', government's and households' differing preferences towards holding and borrowing wealth at different degrees of liquidity/illiquidity.

9.4 Liquidity preference and the theory of money as a means of exchange

Chapter 7 rejected the widespread belief that the *GTOEIM* overlooked the nature of bank money and argued (with Chick and Dow) that the *General Theory* took bank money as 'given'. As in reality, the supply of bank money responds to the requirements of the theory of effective demand. There is then the wider question of the compatibility between the theory of liquidity preference as a theory of money as a store of value and the theory of bank money as a theory of money as a means of exchange. With the theories of money delineated in this way, there is no *a priori* reason to expect incompatibility; indeed, they are wholly compatible. Nevertheless, the inadequacy of Keynes's treatment, both in the *GTOEIM* and in subsequent debate, has led to misinterpretation on some parts and rejection on others.

According to the discussion in Chapter 7, the central bank is able to set the short-term rate of interest if two conditions are satisfied: first, that banks are supplied with cash according to demand, and second, that there is no shortage of eligible assets to reserve against that cash. Both conditions are liquidity preference considerations: there should be an adequate supply of liquidity in the form of both cash and bills to support the supply of bank money. The perspective abstracts

from specific transactions and finance demands¹⁰ to the demand for bank money/active money as a whole. Furthermore, as with inactive demands, an *exogenously* determined supply of bills is key to both. At this point Keynes's simplification through treating inactive and active demands together is seen as justified. However the discussion above equally suggests that the treatment was an oversimplification and it may have been better to elaborate these processes more fully.

A charge not levelled at Keynes, but surely equally valid, is that he also did not address the relationship between the rate of interest in the short-term money market and the long-term rate of interest determined in the capital market (i.e. the banks' lending rate and the reward for parting with liquidity).¹¹

Keynes's liquidity preference theory assumes that the reward for illiquidity is a premium over a *zero* reward for liquidity. In practice there is a reward for liquidity. While money is the liquid asset *par excellence*, as emphasised throughout this discussion, the liquid asset of most importance is the bill. The reward for illiquidity is therefore more fully identified as a spread between long- and short- government assets. The bill rate on short-term lending to the government is in turn related to the discount rate as the short rate underpinning lending to the private sector. The latter can simply be set so that it is compatible with the desired structure of interest rates in the economy. It will have to be higher than the bill rate as a penalty for borrowing from the central bank rather than selling bills.

In the same way, the long-term rate of interest depends more fully on the short rate, the liquidity premium and any risk premia. The latter reflects the premium for lending to companies rather than the government, but also including a

¹⁰ Keynes introduced the finance motive during the 'alternative theories' dialogue: "There has, therefore, to be a technique to bridge the gap between the time when the *decision* to invest is taken and the time when the correlative investment and saving actually occur. ... To avoid confusion with Professor Ohlin's sense of the word, let us call this advance provision of cash the 'finance' required by the current decisions to invest" (CW XIV, p. 208).

¹¹ And this is despite a long discussion on 'The Essential Properties of Interest and Money' in Chapter 17.

premium to reflect the likelihood of default. The risk of default applies to both governments and companies and may of course be cyclical.

An alternative statement of the conclusion of Keynes's theory of liquidity preference is that the liquidity premium can be brought under control. With the discount rate under control, the monetary authorities are able to set the spectrum of interest rates. A spectrum from $\frac{1}{2}$ per cent short to 1 per cent long is feasible and not *a priori* absurd.

9.5 Debt management and monetary policy

At the NDE Keynes set out the practical policy that would allow the government to set rates of interest across the whole spectrum of liquidity. These rates would in turn underpin the prices for all other debt. The theory of liquidity preference saw that the rate of interest depended on the interaction of firms', government's and households' preferences towards holding and borrowing wealth at different degrees of liquidity/illiquidity. Setting the price of securities was simply a matter of allowing the lenders' liquidity preferences rather than those of the borrowers to be paramount: "Authorities make [the] rate what they like by allowing the public to be as liquid as they wish" (CW XXVII, p. 392). A framework for achieving this involved: (i) a new policy of government debt issue; (ii) an international financial framework that permitted capital control; (iii) a number of changes to short-term debt and banking policy; and (iv) abandoning use of Bank rate. Each of these policy areas is examined in turn, with the discussion based mainly on Keynes's speaking notes.¹²

¹² NB the extracts therefore include fragments of sentences.

9.5.1 Debt Management

At the NDE, Keynes first discussed how traditional policy was the opposite of the desired framework. Historically the authorities chose to set the quantity of securities and this meant that the potential buyers set the price of those securities.

Now the authorities are only fettered in their policy if they themselves have a counter-liquidity preference. If they are indifferent about funding they can make both the short and long-term whatever they like, or rather whatever they feel to be right having regard to possibilities of under and over-employment and other social reasons.

If, however, they are not indifferent their motivation comes into play.

Historically the authorities have always determined the rate at their own sweet will and have been influenced almost entirely by balance of trade reasons and their own counter-liquidity preference.

...

Authorities make rate what they like by allowing the public to be as liquid as they wish.

Suppose Tr[easury] say half the debt must be more than 25 years off *or* floating debt must not exceed £*xmn* then it is the public which set the rate of interest. If they require a great inducement to become so illiquid, then rates have to be higher. However it is a vicious circle, dear money provokes expectation of dearer money.

It is the technique of the *tap* issue that has done the trick.

Thus it is only if the Tr[easury] get rid of the Funding Complex that cheaper money is possible.

The Funding Complex originated in a situation

- (a) when there was a fixed fiduciary issue
- (b) Bank rate was the means of preserving the balance of payments
- (c) the rate of interest was used as an instrument of deflation.

With the abandonment of both ^[13] it becomes completely meaningless. I am not aware of *any* argument in its favour.

On the contrary it is expensive
 it is inconsistent with the avowed policy of cheap money
 (as Hoppy ^[14] pointed out) it means losing control of the rate of interest.

(CW XXVII, pp. 391-3)

Keynes here referred to the traditional debt-management policy as the 'Funding Complex'. This was the practical manifestation of the authorities' 'counter-liquidity preference', i.e. their own preference to issue longer-dated debt

¹³ Moggridge points out that (c) was added later.

¹⁴ Sir Richard Hopkins, the permanent secretary to HM Treasury between 1940 and 1945.

(traditionally known as the 'funds') and to limit the supply of shorter-dated debt.^{15,16}

According to the theory of liquidity preference, the problem with funding was that if the public's preference for illiquidity was not as strong as the Government's preference for long borrowing then rates on longer-term debt would have to be higher in order to encourage the public to accept the longer-term issues. Under such circumstances 'it is the public which sets the rate of interest' – and it was not possible for the authorities to bring the rate of interest under control. His specific example illustrated this point. He also observed that there was a vicious circle whereby increases to the long-term rate of interest to encourage illiquidity would generate further expectations of high rates into the future.

As cheap money policy meant abandoning the 'funding complex', Keynes examined its original justification. The first two of (a), (b) and (c) were explicitly linked to the existence of the gold standard and therefore were no longer valid. The third consideration was invalidated by Keynes's wider theory. First, the mechanism through which deflationary monetary policy operated was by reducing demand and hence employment. Second, the NDE notes (reproduced on the previous page) recorded Hopkins's observation that use of Bank rate was inconsistent with cheap money. This is discussed in section (iv), where Keynes's Bank rate proposal is set out.

Given the rejection of the 'funding complex', the practical issue was to find a debt management technique which facilitated keeping the public as liquid as they would like. Keynes argued that the technique of the 'tap issue' provided such a policy: 'it is the technique of the *tap* issue that has done the trick'.¹⁷ Under the tap

¹⁵ This terminology might be a little confusing given liquidity preference is an attribute of the wealth-holder; 'long borrowing preference' might be more accurate from the perspective of the borrower.

¹⁶ Treasury bills were not only limited in supply but from time to time were purchased by the authorities in exchange for longer-term issues (a so-called 'funding operation').

¹⁷ Attention should be drawn to the differing meanings of 'tap issue' as used by Keynes and later by R. S. Sayers, the UK banking historian. In the 1967 edition of his *Modern Banking*, Sayers (p.

system the Government announced the price and maturity of the bond being issued, but set no limits to the cash amount of that issue. The 'tap' of the bond issue was held open so individuals and institutions could purchase when and to whatever quantities they desired.¹⁸ The system therefore enabled the public to choose the quantity of debt issued at each degree of liquidity at the price set by the Government.

The tap issue method was first introduced for the June 1940 wartime issue of 2 ½ per cent medium-term bonds (known as National War Bonds), and used again for the second wartime issue of 3 per cent long-term bonds (known as Savings Bonds). The introduction followed the failure of the first issue of longer-term bonds at a specific price and was used for all subsequent wartime security issues.

The second aspect of Keynes's debt management policy was to extend the degrees of liquidity available by issuing a wider range of securities. Before the gradual development of Keynes's techniques, the authorities tended to offer only very long-term securities and a limited amount of Treasury bills. At the NDE, and again following wartime experience, Keynes argued that the Government should offer two fixed maturity bonds and a perpetuity:

(c) ... 5 year Exchequer Bonds at 1½ per cent and 10 year Bonds at 2 per cent on tap, a new series to be started annually;

(d) 3 per cent Savings Bonds on tap, a new series to be started annually, with an option to the Treasury to repay after 10 years and with, preferably, no final maturity (or, if necessary, a fixed latest date of repayment 35 years hence); (CW XXVII, p. 399)

The purpose of such an arrangement would be to cater for medium-term as well as longer-term savings requirements. The offer of extended facilities further relieved pressure arising from the desire to hold precautionary holdings of wealth

55) means by 'tap issue' a mechanism whereby the authorities issued Treasury bills to Government departments that have funds in hand, and to certain overseas monetary authorities: "the rates of discount at which the bills are issued through the tap is unknown and is irrelevant to the discount market". With the widespread acceptance of Sayers's terminology, it seems that the original notion of the tap – which is of course very different and much more important – has been lost.

¹⁸ An example issue notice stated "subscriptions will be received on Tuesday, 25th June, 1940,

as money, and served to create a more balanced portfolio of asset holdings. Keynes argued that for the longer-term debt “the option of early redemption safeguards a future liberty of action” (CW XXVII, p. 400). This reflected his views on (perhaps very-) long-term trends in interest rates. From the macroeconomic perspective, the notion of diminishing returns to capital means that the yield on aggregate capital expenditure will fall over time. With the rate of interest governing the volume of capital expenditure – as of course it does – a monetary policy aimed at stable and high employment would therefore have to be managed at not only low but also falling rates of interest. From the debt management perspective this meant that terms on any long bond issued would not be superseded by terms on a later issue. It was therefore desirable to avoid, to as great an extent as possible, the situation where previous higher-interest bonds remained in the market as new lower-interest bonds were issued. Overall, his minute of recommendations looked to mechanisms that preserved “the maximum degree of flexibility and freedom for future policy” (Keynes, CW XXVIII, p. 397).

Lastly, the theoretical proposition of diminishing returns to capital also provided a component of the apparatus for cheap money policy that was likely to be important from the perspective of expectations. With recognition that the long-term rate of interest would move in line with the yield on capital, the public would come to appreciate that movements to the long-term rate of interest would only be in the downward direction. The expectation would be that present terms on longer-term issues would not be superseded.

9.5.2 Monetary policy

While a number of discussions touched on various practical points, Keynes made no full and formal statement of his monetary policy and the associated theory in the way that he did for debt management policy. However, much earlier, the

February 1937 Economic Advisory Council Report did set out what amounts to a fairly fundamental statement of principles:

22. ... [I]t may be much more possible and desirable for the financial authorities to exercise adequate control over the supply of credit without recourse to the manipulations of short-term rates which are traditionally associated with this objective. ...

24. ... We attach far greater importance to the effect of credit policy on long-term interest rates, as expressed by the yield on Government securities. ... (TNA: PRO CAB 58/22)

With active use of the short-term rate of interest ruled out, the authorities' 'quantitative regulation of the basis of credit' (CAB 58/22) was instead effected through control over the issue of eligible assets. By tightening the supply of bills to banks, the authorities could, in theory, restrict the issue of credit. The necessity of such action should depend on the cause – if known – of an increased demand for credit and whether that might be inflationary; even then, this demand might be better addressed more directly (e.g. with taxes). In general, Keynes advised an accommodative stance.

Again W.W.II led to further development of practical policies. Sayers notes that the discounting procedure of the Bank of England was formalised as the 'open back door', "to which the discount houses could resort ... [and] turn Treasury Bills into cash at the fixed discount rate of 1 per cent" (Sayers, 1956, p. 223). The most substantial development, however, picked up on the inter-relation between the level of government borrowing and the ability for banks to extend credit. With Keynes advising that the great increase in expenditure for the war effort should be financed in the first place by borrowing from banks, doing so by issuing Treasury bills would have had the paradoxical side effect of effecting an even larger increase in the banks' ability to extend credit. The authorities therefore developed the Treasury Deposit Receipt, described by Howson as follows:

The introduction in July 1940 of Treasury Deposit Receipts (TDRs), by which the major banks were obliged to lend directly to government, added a new instrument to the floating debt, enabling the authorities to borrow on short term without either increasing the Treasury bill issue or having recourse to Ways and Means Advances. Of longer maturity (six months)

than three-month Treasury bills and non-marketable, TDRs were less liquid than Treasury bills and carried a slightly higher interest rate (1 1/8%). This wartime expedient¹⁹ was, as Sayers put it, 'concocted ... [so as] not to disturb the customary relationship [between banks, discount houses, and the Bank of England] and customary "ratios" of the peacetime [banking] system', but it was nonetheless seen as a revolution in fiscal policy, at least in Labour Party circles ... (Howson 1988, pp. 252-3)²⁰

The critical point was that banks were unable to trade in or reserve TDRs to support an expansion of credit. Given their less liquid nature, banks were offered slightly higher interest on TDRs than that paid on Treasury bills (1 1/8 per cent compared with 1 per cent). At the NDE, Keynes suggested reducing the interest rate on both instruments by 1/2 per cent.

In this way, policy addressed the concern of 'monetising' government debt and potentially causing inflation by breaking the direct link between floating debt and credit creation. Outside banking mechanisms, any substantial increases to the floating debt as a result of accommodating liquidity preference for shorter-term instruments were due to *savings* not spending considerations and therefore were also not inflationary.

The dangerous character of this type of debt [floating debt] disappears if there are adequate understandings with the financial world (including, it may be, appropriate regulations for continuing into the future the system of Treasury Deposit Receipts) to ensure the continuous holding of a large, and even increasing, floating debt in all circumstances. (NDE Report, paragraph 23)

During the war, the control of credit was also aided by other aspects of economic policy. Most importantly, aggregate demand was dominated by government expenditure, which should have been more easily regulated than other sources of demand. In addition, consumer demand was implicitly controlled by higher and well-thought-out taxation policies, and investment was potentially controlled by the Capital Issues Committee's management of the new issues market.

¹⁹ This is misleading; TDRs were an integral part of the plan for post-war monetary policy.

²⁰ The instrument *was* revolutionary.

Finally, 'Bank rate' itself was of slight importance in the light of wider policy. In his minute of NDE recommendations, Keynes's proposal was as follows: "(a) Bank rate to be reduced to 1 per cent and to govern the rate payable on overseas money in the hands of the Bank of England, so that this rate would remain unchanged" (CW XXVII, p. 399).

9.5.3 International Financial Policies

Keynes's domestic initiatives emerged against a foreign exchange regime for which he had provided the intellectual justification. The over-riding consideration was that exchange policy should not interfere with domestic policy. While wartime initiatives were facilitated by fuller exchange and capital controls, Keynes also looked to more formal international mechanisms after the war. The details of these proposals are highly important aspects of Keynes's overall practical policy, yet have been almost entirely ignored in the context of facilitating domestic policy autonomy. There is insufficient space for a full treatment; but two overriding principles can be stated using Keynes's own words. For asset markets, Keynes required *capital control*:

You overlook the most fundamental long-run theoretical reason. Freedom of capital movements is an essential part of the old *laissez-faire* system and assumes that it is right and desirable to have an equalisation of interest rates in all parts of the world. It assumes, that is to say, that if the rate of interest which promotes full employment in Great Britain is lower than the appropriate rate in Australia, there is no reason why this should not be allowed to lead to a situation in which the whole of British savings are invested in Australia, subject only to different estimations of risk, until the equilibrium rate in Australia has been brought down to the British rate. In my view the whole management of the domestic economy depends upon being free to have the appropriate rate of interest without reference to the rates prevailing elsewhere in the world. Capital control is a corollary to this. Both for this reason and for the political reasons given above, my own belief is that the Americans will be wise in their own interest to accept this conception, even though its immediate applicability in their case is not so clear. (CW XXV, p. 149)

For exchange markets, Keynes developed his Clearing Union; the essential mechanism was outlined in a letter to the Governor of the Bank of England:

The *essence* of the scheme is very simple indeed. It is the extension to the international field of the essential principles of *banking* by which, when one chap wants to leave his resources idle, those resources are not therefore withdrawn from circulation but are made available to another chap who is prepared to use them – and to make this possible without the former losing his liquidity and his right to employ his own resources as soon as he chooses to do so. Just as the domestic situation was transmogrified in the eighteenth and nineteenth centuries by the discovery an adoption of the principles of local banking, so (I believe) it is only by extending these same principles to the international field that we can cure the manifest evils of the international economy as it existed between the two wars, after London had lost the position which had allowed her before 1914 to do much the same thing off her own bat. (CW XXV, pp. 98-9)

Article VI of the Bretton Woods Agreement permitted member countries to put into place, or keep in place, capital controls.²¹ On exchange policy, the Agreement fell far short of Keynes's ideal.

9.6 'Keynesian' theories of liquidity preference

The Keynesian or *IS-LM* approach to liquidity preference theory (LPT) followed the general argument that the *General Theory* was not a revolution in thought: Keynes's approach to interest theory revealed a necessity to formalise developments to the classical theory that were already well known, if not clearly set out in the literature. In classical theory the rate of interest is determined by saving and investment. Loanable funds theory (LFT) is a variant of this, preserving the importance of saving and investment but moving away from the classical conception of real resources and a real rate of interest to a monetary rate seemingly determined by monetary factors.

²¹ Today, the post-Keynesian position is also associated with capital control. However, the argument is not put in the context of domestic interest rate policy. A good example is Paul Davidson's justification, published quite recently in *The Guardian*: "(1) to prevent a lack of global effective demand due to nations oversaving liquid foreign reserves (2) to induce the surplus nation to contribute to resolving the import-export imbalance, since the surplus nation has the economic wherewithal and is in the better economic position and (3) to encourage debtor nations to work their way out of debt rather than await handouts or bailouts, or to default on their

The specific argument had two main strands. First, as addressed in (9.4), liquidity preference failed to take into account active money considerations. Second, LFT not only adequately tackled the issues raised in the context of liquidity preference but also, properly understood, was equivalent to Keynes's theory. While Keynes gradually conceded some ground on the first, he emphatically rejected the latter. The debate has already been covered to some extent in Section 3.3 and 4.2; this section elaborates the discussion in the light of the two strands of the argument, and also looks at the later contributions of the 'Keynesians'. In this way, Hicks's (1936) review opened the public debate:

The rate of interest will be determined at that level which makes the demand for money equal to the supply.

This looks a most revolutionary doctrine; but it is not, I think, as revolutionary as it seems. ...

The ordinary method of economic theory would be to regard each price as determined by the demand and supply equation for the corresponding commodity or factor; the rate of interest as determined by the demand and supply for loans. ... But we could equally well work in another way. We could allot to each commodity or factor the demand and supply equation for that commodity or factor, as before; but we could allot to the rate of interest the equation for the demand and supply of money. ...

This latter method is the method of Mr. Keynes. It is a perfectly legitimate method, but it does not prove other methods to be wrong. The choice between them is purely a question of convenience. (Hicks, 1936, p. 246)²²

Keynes first responded to Hicks in private correspondence. He addressed the claimed equivalence of interest theories: "3. In summing up what you have to say about liquidity preference you say mine 'is a perfectly legitimate method but it does not prove other methods to be wrong'. I am not clear in this passage what 'other' methods you have in mind" (31 August 1936, CW XIV, p. 72). Hicks's reply illustrates his adherence to loanable funds:

international obligations" (1 December 2003).

²² Other parts of the review were more useful – e.g. "It has however, weak places. It is easy to slip into regarding the liquidity preference curve – the curve connecting interest with the demand for money – as a stable curve, so that we can concentrate our attention entirely upon this particular relation. But that is evidently not so, as Mr. Keynes shows clearly" (*ibid.*, p. 247).

3. By talking about ‘other methods’ when I was discussing liquidity preference, I meant that I still believe that that whole theory could be cast into a more traditional form, and even that this might have some advantages. What you do is determine the rate of interest by the demand-for-money equation – and this means that you have to pack an unconscionable lot into the demand for money. I don’t see that there is anything to prevent anyone who chooses to determine the rate of interest by the demand and supply for loans – provided he remembers to pack into them a similar lot of things to those you pack in elsewhere. (CW XIV, p. 73)

Keynes followed up quickly, asking for more clarification on 8 September 1936; Hicks replied on 16 October 1936. As Moggridge observes,²³ this letter contained the draft *IS-LM* paper (and thus arguably *IS-LM* was a response to Keynes’s attack on LFT). And, as detailed in section 4.2, Keynes’s response (March 1937) raised specifically the loanable funds implications of Hicks’s construct. Subsequent correspondence continued to press Hicks on the same point, and pointed to the ‘alternative theories’ dialogue for its resolution.

Overlapping with this exchange were Robertson’s and Viner’s reviews in the November 1936 *QJE*. Viner covered a range of issues. In the course of his discussion he emphasised transactions requirements: “Whatever its origin, demand for cash for transaction purposes is, dollar for dollar, of equal influence on the rate of interest as demand for cash for hoarding purposes” (Viner, reproduced in Backhouse, 1999, p. 204).²⁴ Most of Robertson’s article was concerned with the loanable funds critique. Objecting specifically to Keynes’s theory combining “those who to desire to *hold* more money and those who desire to *use* it...” (Robertson, 1936, reproduced in Backhouse, 1999, p. 209), he argued that loanable funds considerations had an “important effect in determining the rate of interest”. As shown in Chapter 3, he set out the groundwork for the *LM* presentation in the course of this critique.

²³ “... which resulted in Keynes being sent a draft copy of Hicks’ later paper ‘Mr Keynes and the Classics’ ... which Hicks had presented to a meeting of the Econometric Society at Oxford” (CW XIV, p. 74).

²⁴ Loanable funds theorists preferred to refer to the inactive aspect of liquidity preference as the

Keynes first responded in a private letter to Robertson. He argued that loanable funds considerations *were* covered in the *GTOEIM*:

I have many pages on the theme that increasing investment involves increasing output and that this kicks back on the rate of interest ~~and that this kicks back on the rate of interest~~ by draining away more money into the active circulation, so that, failing measures to the contrary, a high level of activity carries within it the seeds of its own destruction by raising interest too high. (CW XIV, p. 91)²⁵ §

His first formal response came as part of the famous February 1937 *QJE* article. While the paper set out a summary of his whole theory, in the course of the discussion he referred briefly to the loanable funds critique. He first repeated the points he had made privately to Robertson, and second emphasised that his theory of interest concerned money as a store of value:

[the classical economist] has overlooked the precise nature of the difference which his abstraction makes between theory and practice, and the character of the fallacies into which he is likely to be led.

This is particularly the case in his treatment of money and interest. And our first step must be to elucidate more clearly the functions of money.

Money, it is well known, serves two principal purposes. By acting as a money of account it facilitates exchanges without its being necessary that it should ever come into the picture as a substantive object. In this respect it is a convenience which is devoid of significance or real influence. In the second place it is a store of wealth. ...

The significance of this characteristic of money has usually been overlooked; and in so far as it has been noticed, the essential nature of the phenomenon has been misdescribed. (CW XIV, pp. 115-16)

The fuller response came through the 'alternative theories' debate. As seen in section 3.3, both the background correspondence with Ohlin, who was putting the loanable funds case, and the published article, showed that Keynes's work was aimed at Hicks and Robertson. Keynes was unequivocal about the incompatibility

'propensity to hoard', with hoarding an important component of their theory (see 3.3.2).

²⁵ The dialogue also suggests that the loanable funds theory that Robertson advocated was not well established in the literature; Keynes asked "Where is it to be found? Can you give me the references?" (CW XIV, p. 92).

between the two theories. In his February 1937 letter to Ohlin he wrote that loanable funds was “fundamental heresy”, and that the two theories were “wholly irreconcilable” (CW XIV, pp. 185-6). Equally, his published article could not have been clearer. It opened:

There is, I think, a concealed difference of opinion, which is of very great importance, between myself and a group of economists who express themselves as agreeing with me in abandoning the theory that the rate of interest is in (Professor Ohlin’s words) ‘determined by the condition that it equalises the supply of and the demand for saving ...’.

... The alternative theory held, I gather, by Professor Ohlin and his group of Swedish economists, by Mr Robertson and Mr Hicks, and probably many others, makes it to depend, put briefly, on the demand and supply of *credit* or, alternatively (meaning the same thing), of *loans*, at different rates of interest. Some of the writers (as will be seen from the quotations given below) believe that my theory is on the whole the same as theirs and mainly amounts to expressing it in a somewhat different way. Nevertheless the theories are, I believe, radically opposed to one another. (CW XIV, pp. 201-2)

Robertson refused to accept Keynes’s argument. He provided one of three rejoinders in the September 1937 *EJ* (Robertson, 1937). In the December 1937 *EJ* Keynes responded with a new article, ‘The ‘Ex Ante’ Theory of the Rate of Interest’ (CW XIV, pp. 215-223); Robertson (1938a) followed up in ‘Notes and Memoranda’ of the June 1938 issue: ‘Mr. Keynes and “Finance”’; Keynes added a rejoinder at the end of Robertson’s article (CW XIV, pp. 229-33). Seemingly determined to have the last word, Robertson (1938b) provided a re-rejoinder for the September 1938. Keynes’s exasperation is clear from private correspondence at the time (found in the laundry basket, CW XXIX, pp.163-84), describing the June contribution as “completely worthless and, what is more, intolerably boring” (*ibid.*, p. 168). In parallel Robertson aired the argument in the *Manchester School* (1938c) and finally (at least while Keynes was alive) returned to matters in his 1940 book.

Hicks, on the other hand, retreated into the background after Keynes's April 1937 letter. In February 1939 he re-emerged with *Value and Capital* (a second edition was published in July 1946 – three months after Keynes's death).²⁶ In the 'Introduction' Hicks assesses the necessity of publishing a new book on economics given the existence of the *GTOEIM*: "Yet I still think it worth while to produce my own analysis, even if it looks pedestrian beside his. A more pedestrian approach has the advantage of being more systematic; further, I think I have clearer up several important things he left not very clear" (Hicks, 1939a, p. 4). In Chapter 12, 'The Determination of the Rate of Interest', he states his aim as demonstrating equivalence:

I shall hope to show that it makes no difference whether we follow his [Keynes's] way of putting it, or whether we follow those writers who adopt what appears at present to be a rival view. Properly followed up, the two approaches lead to exactly the same results. (Hicks, 1939a, p. 153)

A *footnote* puts his new position into context:

It appears that my earlier attempt to convince Mr. Keynes that the above is a valid way of approaching his theory was not very successful. (Keynes, 'Alternative Theories of Interest', *E.J.*, June 1937, quoting my review article, 'Mr. Keynes's Theory of Employment', *E.J.*, June 1936.) I think the obscurity in this article of mine arose mainly from the fact that I was not clear when I wrote about the different properties of a spot economy with short lending and a spot economy with long lending. Mr. Keynes habitually works with the latter model; I was already, before the appearance of his book, beginning to work out the properties of the former. The device of eliminating the loans (or securities) equation can be used with either model; I had discovered its convenience for my model before Mr. Keynes's book came out. (See my 'Wages and Interest', *E.J.*, Sept. 1935, p. 467.) I hope the present chapter will clear up the matter. (Hicks, 1939a, p. 162)

Even at the time, Harrod's (1939) review for the *Economic Journal* was sceptical:

²⁶ Hicks's 'Preface' aligns the book with the LSE perspective on economics: "The ideas on which this book is based were conceived at the London School of Economics during the years 1930-5. They were not by any means entirely my own ideas; they came into being by a sort of social process which went on among the people who were working there, at that time, under the leadership of Professor Robbins. Those whom I remember particularly as having contributed were Mr. R. G. D. Allen, Mr. Kaldor, Mr. Lerner, Professor Hayek, Dr. Rosenstein-Rodan, and Dr. Edelberg." (Hicks, 1939a, p. i).

There is, however, a lengthy discussion of interest theory. Professor Hicks finds an ingenious way of reconciling the views of Mr. Keynes and his critics; it is not for a reviewer to intervene between Professor Hicks and Mr. Keynes, but some suspicion must be registered that Professor Hicks has not fully unfolded the whole truth of the matter. (Harrod, 1939, p. 298)

No comments from Keynes on Hicks's new approach are recorded in *Collected Writings*. However Moggridge's biography of Keynes reproduces a letter from Keynes to Kahn (11 April 1939):

I have now finished reading Hicks's book. I don't think I have ever read a book by an obviously clever man, so free from points open to specific criticisms, which was so utterly empty. I did not, at the end, feel a penny the wiser about anything. He seemed able to decant the most interesting subjects of all their contents, and to produce something so thin and innocuous as to be almost meaningless. Yet, in many ways, it is well written and clear, clever and intelligent, and without mistakes. But about nothing whatever. Simple things are made to appear very difficult and complicated, and the emptiest platitudes paraded as generalisations of vast import. A most queer book. (Moggridge, 1992, p. 553)²⁷

Chick is one of the few, if not the only, modern scholar to address the validity of Hicks's claims. In her 'Hicks and Keynes on Liquidity Preference: a Methodological Approach' (1991) she argued that attempts at reconciliation "will remain, unsuccessful" (Chick, 1991, p. 309).²⁸

Hicks returned to the debate for a last time in a Review of Hawtrey's *A Century of Bank Rate*. He interpreted the work as an empirical challenge to Keynes: "In other works, in *The Art of Central Banking*, in *Capital and Employment*, he has conducted an assault on the theoretical foundations of Mr. Keynes' doctrine; this is the complementary volume in which the attack is transferred onto the ground of fact, or rather (of course) interpretation of fact" (Hicks, 1939b, p. 21). While Hicks found Hawtrey's own explanation for movements in long-term rates

²⁷ This letter is not included in *Collected Writings*.

²⁸ She also notes other attempts at integration "The efforts of Tsiang (1966), Leijonhufvud (1981) and Asimakopulos (1983) are only those to spring most immediately to mind" (Chick, 1991, p. 314). See also Bibow (2001).

“unsatisfactory” (*ibid.*, p. 23), he also concluded that “Mr. Keynes’s emphasis on the significance of the long-term rate in monetary policy seems best regarded as a reflection of the peculiar situation of the nineteen-twenties” (*ibid.*, p. 37). In this way he also set up a position pursued after the war – that the *GTOEIM* was ‘depression economics’: “... Keynes’s *General Theory* a piece of model-building in the face of the Great Depression” (Hicks, 1947, p. 151).

Hicks was not the only ‘Keynesian’ economist concerned with the theory of the rate of interest at this time. In 1939 and 1940 M. Kalecki and N. Kaldor began to advance the ‘expectations’ perspective, where the long-term rate is a function of expectations of the short-term rate. Kalecki’s review of *GTOEIM*²⁹ gives emphasis to means of exchange considerations rather than wealth considerations:

Hence the rate of interest cannot be determined by the demand for and supply of ‘capital’. Its level, according to Keynes’s theory, must therefore be determined by other factors, namely the supply of and demand for means of payment. If, for instance, a given amount of money is in circulation and social income grows, the demand for the means of payment will increase and the rate of interest will rise as much as it is necessary to bring about the use of the same quantity of money despite the higher level of activity. This is a very general sketch of Keynes’s theory of the rate of interest, which we do not want to deal with in detail here. (Kalecki, translated by Targetti and Kinda-Hass, 1999, p. 29)

His own theory of interest, ‘The Short-Term Rate and the Long-Term Rate’, was published in the fourth issue of *OEP*: “... our theory explains satisfactorily the long-run changes in the long-term rate of interest in the period 1849-1938. In the light of it they appear to be caused by the long-run changes in the short-term rate and by the rise in the ‘risk coefficient’ σ and of r_{\max} as a result of the Great War” (Kalecki, 1940, p. 21). Here r_{\max} is the yield corresponding to the minimum price, p_{\min} defined as follows: “a certain more or less definite idea based on past experience about the minimum ... to which this price [of a Consol] may fall, ... ” (*ibid.*, p. 16). The theory entirely sets aside the notion that interest was the reward for parting with liquidity. The paper neither mentions Keynes nor does it contrast

²⁹ Published in the Polish journal *Ekonomista* and later translated by Targetti and Kinda-Hass in 1982.

the two approaches. Kalecki's aim is essentially to find retrospectively various 'real' factors to explain away the behaviour of the rate of interest. Kaldor had developed a similar argument in an October 1939 paper, 'Speculation and Economic Stability'. He later described his analysis in the introduction to his 1960 book of re-prints, *Essays on Economic Stability and Growth*: "It followed ... that the factors which determine the short rate of interest over longer periods provide a point of anchorage for explaining the whole structure of interest rates, which was missing (according to Professor Robertson's 'bootstraps' argument) from Keynes' presentation" (Kaldor, 1960, p. 4).³⁰ There is no recorded comment from Keynes on either of these papers. As shown in section 5.3, Kahn and Robinson explicitly rejected this approach after Keynes's death.

Lastly, while the properties of the 'Keynesian' theory of liquidity preference were loanable funds properties, there was of course also a static foundation based on a theory of money as an asset. As Chick has exposed in detail and with rigour, these theories are theories of portfolio preference under conditions of risk rather than uncertainty.³¹ Kaldor's *Scourge of Monetarism* provides an example of a two-asset model "... the idea of liquidity preference – that people's demand for money will be greater the lower the rate of interest" (Kaldor, 1986, p. 21). Without uncertainty, to avoid Keynes's 'lunatic asylum' (section 9.2), the (usually not stated) appeal is to a trivial argument based on 'shoe-leather cost', with there being less to lose when holding money at a lower rate of interest compared to a higher. The celebrated model is Tobin's (1958) 'Liquidity preference as behaviour towards risk', extending the two-asset portfolio theory to any number of assets. But this is an extension of 'Keynesian' portfolio theory, not Keynes's theory of interest (and seemingly acknowledges the distinction in the title of the paper – though not in the text). These theories merely provide a justification for the existence of a static and rigid liquidity preference schedule that is then

³⁰ He also noted that "further reflection has not caused me to change my views in any important degree" (*ibid.*). Thirlwall's biography of Kaldor (1987, p. 75, n. 46) states: "The paper was relatively neglected, perhaps because it coincided with the publication of Hicks' *Value and Capital*. On re-reading the paper in 1986, Hicks wrote to Kaldor: 'I think that your paper was the culmination of the Keynesian revolution in *theory*. You ought to have had more honour for it'".

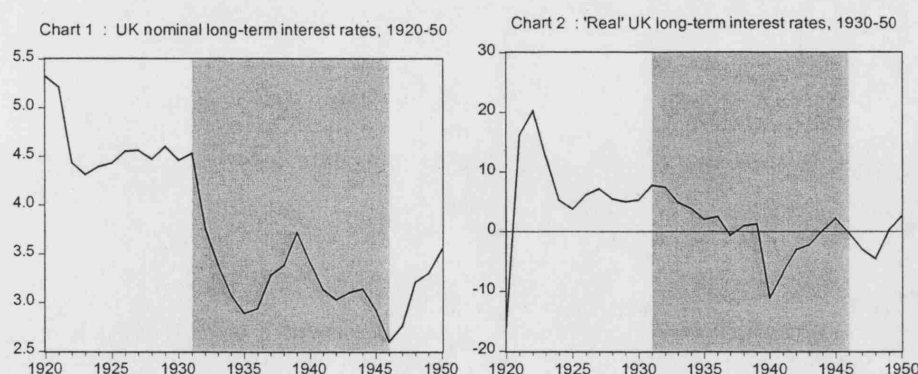
³¹ Chick (1983, pp. 213-18) tackles Tobin; Chick (1991) tackles Hicks; and Chick and Tily (2004) tackle the Keynesian models chronologically.

transformed to 'LM' using LFT. They, as all other 'Keynesian' efforts examined here, are flawed and grossly misleading theories of interest.

9.7 The validation of liquidity preference theory

With no recognition of the fundamental policy conclusion of Keynes's theory of liquidity preference, the evidence of its practical application has not been brought to bear on its validity. Such evidence is compelling, indeed, to my mind, irrefutable.³² Liquidity preference theory predicts that deliberate action on the part of the monetary authorities will reduce (or increase) the long-term rate of interest. Classical, loanable funds and Keynesian theories of interest either have very little to say on this ability or are underpinned by a natural rate of interest impervious to policy manipulation. Figure 9.5 shows how both real and nominal rates declined almost continuously throughout the period when Keynes advocated a reduction and when his monetary policy advice dominated the views of others.

Figure 9.5: UK nominal and real long-term interest rates, 1920-50³³



³² As with all Keynes's debt management proposals, the tap issue is little discussed. However, Professor S. Howson (1988, p. 252), one of the few authors who has focused on the subject, also appears to accept that the method was a success. She notes with respect to wartime finance: "The problem of ensuring the financing of the war at 3 per cent was then *solved* by a change in technique" (my emphasis).

The main exception was between 1936 and 1939. This reversal of progress occurred while Keynes was very sick and Neville Chamberlain was Prime Minister (from May 1937 - May 1940). Following his recovery, in his 1938 annual statement as Chairman of the National Mutual, he explained the movement as a consequence of the technique by which the exchange equalisation account was purchasing gold. With the shadow of totalitarianism looming, he pleaded with the authorities to take the appropriate action:

A great deal is at stake. We are engaged in defending the freedom of economic life in circumstances which are far from favourable. We have to show that a free system can be made to work. To favour what is known as planning and management does not mean a falling away from the moral principles of liberty which could formerly be embodied in a simpler system. On the contrary, we have learnt that freedom of economic life is more bound up than we previously knew with the deeper freedoms – freedom of person, of thought, and of faith. (CW XXI, p. 446)

Rates peaked in 1939 and the downward movement resumed in 1940. As discussed in Chapters 1 and 2, rates were successfully fixed at 3 per cent for the duration of the war. After the war they were pushed even lower. The year of Keynes's death marked the lowest nominal long-term rate on government debt recorded in the Twentieth Century (apart from 1900).³⁴

9.8 The 'resolution' of the debate

Echoing the resolution of the saving-investment debate, Keynes's theory of liquidity preference was very soon after his death. In the June 1947 *EJ*, as discussed in Chapter 5, Hicks began to look to justification for raising the rate of interest.³⁵ He concluded: "There are other instruments of economic policy which

³³ Source: Friedman and Schwartz (1982, Table 4.9).

³⁴ Source: Homer (1963, pp. 409-10).

³⁵ He had foreshadowed this position in an October 1939 letter to *The Times* that looked to a 'problem of the aftermath [of the war]' with a claimed relevance to the desirability of low interest rates during the war. Keynes attacked Hicks's argument both in a response to *The Times* and in private correspondence. In the course of the latter, Hicks explained "The more saving and the less

can attain the same objective as a rise in interest rates; and some of these may well be less destructive instruments. But we should not forget that in these days of scarcity time is short; and the rate of interest is the price of time” (Hicks, 1947, p. 164).

Then in December 1948 Robertson delivered a lecture at the ‘Institut de Science Economique Appliquee in Paris’. Entitled ‘What has Happened to the Rate of Interest?’, the content involved a re-assertion of his own position with regard to the practical and theoretical importance of the rate of interest and to the appropriate theory of interest.

In the nineteen-thirties, under the first impulse of Keynes’s work, the rate of interest was elevated to a position of commanding theoretical importance. ... it became, as never before, the keystone of the whole theoretical arch. But it also became the villain of the piece, and a very powerful villain. It was the dragon guarding the cave of “liquidity preference” – of the ineradicable urge of capitalist society to run for cover and to play for safety; it became the rock against which the waves of social improvement beat in vain. Nowadays – I am still talking about high-brow opinion – things seem to have altered in two ways. The rate of interest has come to be regarded as of less importance in the causal nexus, its high *reclame* of the nineteen-thirties savouring too much, to the modern taste, of an obsolescent economics of price. And at the same time it has come to be regarded as less powerful in practice and more vulnerable to attack. ...

I think the rate of interest, in what Marshall once called its “strict sense”, is the price of the use of loanable or investable funds, and is governed like other prices by the interaction of schedules of supply and demand. (Robertson, 1966, pp. 188-9)

He also brought Hicks’s argument to bear on his cause:

private investment there is in wartime, the greater will be the release of effective demand the moment the war is over; ...” (CW XXII, p. 34). Keynes rejected both the relevance of the argument to the setting of the war rate of interest and the concern about post-war inflation: “Whether or not, however, you are right in expecting such a boom, I should be inclined to predict that it would only be an event of a few months and that our real post-war problem would be inadequate effective demand. The difficulty will be to find any continuing successor to war expenditure. That indeed is an important part of the reason why I want to end up the war with a low rate of interest” (CW XXII, pp. 35-6).

... and I was glad to find my greatly esteemed mentor Professor Hicks, whose previous writings on the rate of interest have sometimes troubled me, reverting to it in an article published in the *Economic Journal* for June 1947. "We should not forget," that article concludes, "that in these days of scarcity time is short; and the rate of interest is the price of time." Momentous words! Not the price of liquidity, mark you, but the price of time – just as the great nineteenth-century economists always supposed! (Robertson, 1966, pp. 195)

With 'momentous words' of 'high-brow opinion' replacing theoretical debate, liquidity preference theory was dismissed in all but name. Today, outside post-Keynesian economics, the true nature of liquidity preference is not recognised and any debate almost entirely lost. In an edition of *The Oxford Review of Economic Policy* addressing 'Real interest rates', Joseph Stiglitz put together a brief historical retrospective as background to his own theory of interest. He tackled Keynes's contribution as follows:

The deficiencies in the money demand model, which has been the centre of attention at least since Keynes (see Keynes, 1936), are increasingly being recognized. In that model, the demand for money depends on the level of (money) national income and the interest rate, which represents the opportunity cost of holding money. ...

In the 1930s, there was a *strong* competing theory, the loanable funds theory, advocated, for example, by Robertson (1936). In that model, the interest rate is determined as the intersection of a downward-sloping demand for funds and an upward-sloping supply curve of funds. (Stiglitz, 1999, p. 60, my emphasis)

In this way he sets the static foundation of the 'Keynesian' model against the loanable-funds properties of the Keynesian model; liquidity preference is not even mentioned. Only Charles Goodhart (who wrote his PhD thesis under Robertson) has debated the issues in any detail. Overall Goodhart seems to prefer the Kaldor/Kalecki variant where the long-term rate is influenced by expectations of the short-term rate. In addition, he preserves the Robertsonian position on the specific issue of LPT/LFT:

Keynes exaggerated the importance of the 'liquidity preference' effect, relative to the longer-term 'loanable funds' theory of interest, in order to differentiate his approach from the Classical. This led to an invalid

concentration upon a small set of financial interest rates as providing the sole means of short-term equilibration of the demand and supply of money and, similarly, the sole transmission channel for monetary policy. (Goodhart, 1989, pp. 214-5)

Keynes was, however, so keen to make a break with the previous Classical analysis that he pushed his new Liquidity Preference theory, and his accompanying analysis of the process by which the demand and supply of money could be equilibrated, further than was justifiable. (Goodhart, 1989, p. 224).

Like Robertson, Goodhart goes on to reject Keynes's analysis for failing to treat aspects of active demand in a comprehensive manner. He misleads too. Keynes did not derive the theory of liquidity preference for the trivial reason of 'breaking' or 'differentiating' with the classical theory; he rejected the classical theory of interest as incorrect and disastrous. The theory of liquidity preference was the central component of his revised theory, a component with the most profound practical implications.

Even many post-Keynesian economists have dimmed the importance of liquidity preference. They do so in one or both of two ways: through an erroneous portrayal of liquidity preference theory itself and/or diminishing the role of liquidity preference and the rate of interest in any associated wider theory of economic activity. Kaldor did both. It has already been shown (9.7) that he has adopted both expectational and portfolio approaches to liquidity preference theory. As discussed in Chapter 7, Kaldor also rejected a role for liquidity preference in the wider sense. He argued that "effective demand for commodities in the aggregate is not determined by monetary factors but by autonomous demand ... " (Kaldor, 1986, p. 20) and then explicitly rejected any role for liquidity preference:

'Liquidity preference' turns out to have been a bit of a red herring – not the 'crucial factor' which, in the view of the great economists of Keynes's generation, such as Dennis Robertson or Jacob Viner, and, of a later generation, Harry Johnson or James Tobin, alone enabled Keynes to argue that an economy can be in equilibrium at less than full employment. It has nothing to do with that at all. (Kaldor 1986, p. 26)

Paul Davidson's post-Keynesianism adopts a different – but still unsatisfactory – stance. On one hand, he emphasises the importance of the theory of liquidity preference in Keynes's broad scheme (he calls it “the revolutionary aspect of Keynes's analysis”, Davidson, 2000, p. 6). On the other hand, despite his wider and extensive emphasis on ‘uncertainty’, his version of liquidity preference theory pays little attention to the uncertainty of the values of financial assets into which wealth is placed and tends to a ‘Keynesian’ version with the addition of his version of the finance motive. In his theory, liquidity preference exists more because of uncertainty about real considerations than monetary considerations:

It is only in a world of uncertainty and disappointment that money comes into its own as a necessary mechanism for deferring decisions; money has its niche only when we feel queasy about undertaking any actions which will commit our claims on resources on to a path which can only be altered, if future *events* require this, at very high costs (if at all). (Davidson, 1972, p. 104, my emphasis)

At the same time, Davidson's perspective has skewed post-Keynesian debate towards credit rather than wealth considerations.³⁶ However, despite discounting financial uncertainty in liquidity preference, Davidson does afford the rate of interest a fuller role in the determination of demand. And he finds fault with the approach the Kaleckian post-Keynesians took from Kalecki: “From Keynes's liquidity preference financial market analysis perspective, therefore, the short shrift Kalecki gives the role of financial markets and the rate of interest in affecting investment is a deficiency in Kalecki's effective demand analysis” (Davidson, 2000, p. 8).

Of the post-Keynesians, Chick, Dow and Bibow have kept Keynes's theory of liquidity preference alive (e.g. Chick 1983, Dow 1997, Chick and Dow 2002, Bibow 1998 & 2001). First, they have restored the role of uncertainty and expectations of the rate of interest. Second, they have afforded the theory of liquidity preference a substantial role in the wider depiction of macroeconomic

³⁶ Bibow (2001, p. 612 n. 1) has also charged Davidson with pursuing the Robertson/Hicks line on equivalence: “Among Keynesian reconcilers, Davidson (1965, p. 60; 1978) truly stands out in asserting that the LP-LF debate is merely a ‘semantic confusion’”. The article that Bibow refers to also sees Davidson referring to the debate as a “barren controversy” (Davidson, 1965, p. 59).

activity as a key component of the theory of effective demand. The present analysis differs only in pursuing the theory to its logical practical conclusions in the way that Keynes did. The restoration of liquidity preference theory has not, so far, led to recognition that, under conditions of uncertainty, expectations can be manipulated and interest brought under control.

Chapter 10

The Monetary Theory of Real Activity

10.1 Introduction

Keynes's theory of real activity provides an explanation for both the level of activity and the economic cycle. The theory is a monetary theory from three perspectives. First, the most important determinant of the level of activity is the monetary rate of interest. Second, the level of activity determined by the rate of interest and expectations is facilitated by bank money. Third, an unsustainable level of activity is reflected in an accumulation of debt and asset price inflations, and is ultimately restrained by the prospect of financial collapse.

As indicated in Chapter 6, the main emphasis of my discussion of Keynes's theory of real activity concerns these sustainability issues that in turn arise from a view of activity that goes beyond the short period. In the course of the discussion, these considerations will be referred to as longer-period considerations.

The chapter begins with a brief resume of the theory of aggregate demand and supply, but one that looks to align that theory with the broader aim of the discussion. The same section also addresses and dismisses the 'Keynesian' theories of aggregate demand and the economic cycle. However this discussion is not protracted, because, in contrast to the dialogue addressed in the two previous

chapters, there was very little debate between the Keynesians and Keynes concerning the relative merits of each theory. Keynes's theories here were largely unchallenged; the *IS-LM* and 'Keynesian cross' perspectives on demand and the accelerator theory of the cycle were simply substituted for Keynes's theory after his death.

The bulk of the discussion concerns the economic cycle as an interaction between changes in investment demand, money and interest. On one hand, the rate of interest sets a limit to the amount of investment that can be profitably undertaken. On the other hand, money and 'animal spirits' mean that there need be no constraint on activity from day to day. But beyond this short period the rate of interest constraint is ultimately binding and operates through a transmission mechanism based on debt. This last point goes beyond anything explored in the *General Theory*. The upswing of an economic cycle is accompanied by steady growth of debt, which eventually and inevitably ends in financial and real contraction. The argument builds to the conclusion that the obvious policy for high activity, i.e. low interest rates, is also the relevant policy to prevent – or at least greatly diminish – the economic cycle.

10.2 The theory of aggregate demand

As is well known, aggregate demand is built up from macroeconomic theories of investment and consumption demand. From the point of view of the discussion here, investment demand has the pivotal role. Keynes argued that the amount of investment carried out by firms depends on the marginal efficiency of capital (*mec*) schedule and the rate of interest that the same firms face in capital markets. The *mec* schedule reflects entrepreneurs' expectation of the returns on undertaking capital expenditure, defined in Chapter 11 of *GTOEIM* as follows: "more precisely, I define the marginal efficiency of capital as being equal to that rate of discount which would make the present value of the series of annuities given by the returns expected from the capital-asset during its life just equal to its supply price" (CW VII, p. 135). At the start of any period, firms assess their likely

returns due to various amounts of capital expenditure and will implement investment according to the interaction between this assessment (their *mec* schedule) and the rate of interest. The relevant rate of interest is the benchmark rate set in the market for long-term government debt adjusted for the perceived riskiness of the corporate sector at any specific point in time ('the' rate of interest). Aggregating across all firms in the economy leads to a macroeconomic *mec* schedule that links each rate of interest to a unique level of investment. The theory defines an equilibrium in the sense that the *mec* is a demand schedule for investment that is set against an endogenous supply of funds at 'the' rate of interest. It is a simple but not trivial fact, following from not only the *General Theory* but also the classical theory, that a lower rate of interest leads to a higher level of investment.¹

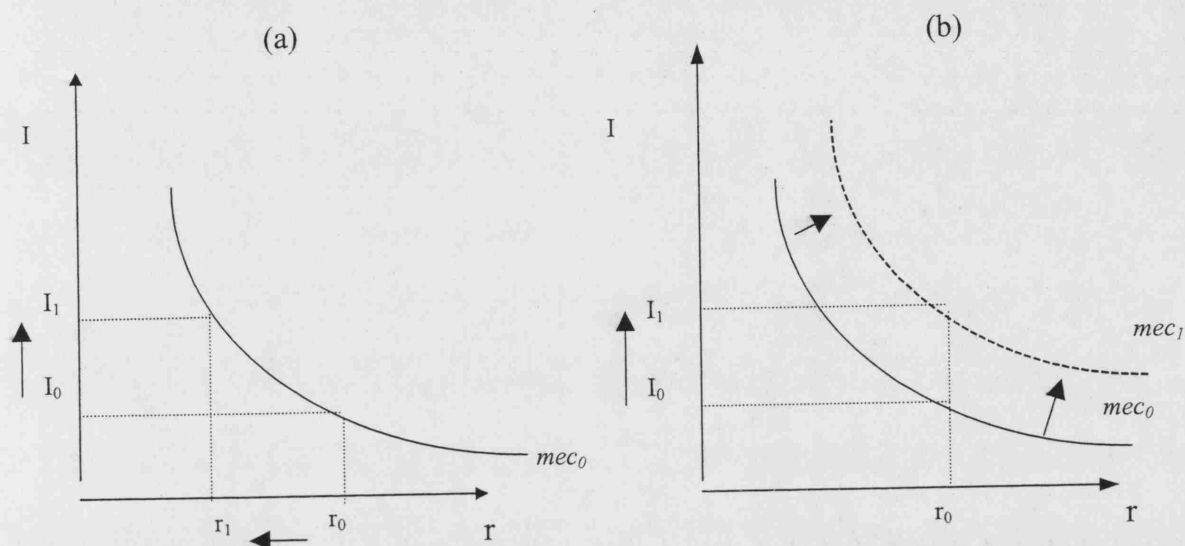
The economic cycle and associated sustainability issues follow from the role of expectations. As with market expectations of the future rate of interest, the yield on investment is uncertain for it depends on estimates of future demand that cannot be known: "The considerations upon which expectations of prospective yields are based are partly existing facts which we can assume to be known more or less for certain, and partly future events which can only be forecasted with more or less confidence" (CW VII p. 147). The aggregate *mec* schedule, as with the liquidity preference schedule, is hence dependent on a state of expectation about the *uncertain* future. As with the theory of liquidity preference, the next critical point was that the *mec* schedule would shift following a change in the state of expectation. Keynes's notion of 'animal spirits' then reflected the further insight that firms' estimates of the yields of investment will periodically be subject to either excessive optimism or pessimism.

There are therefore two potential causes of an increase in investment demand: a cut in the rate of interest (Figure 10.1a), or a change in expectations towards

¹ Although, shortly after the publication of the *GTOEIM*, Henderson sought to show otherwise through his new 'Oxford Economics Research Group' and new journal, *Oxford Economic Papers*. Henderson's (1938) own agenda was supported by empirical work by Meade and P.W.S. Andrews (1939). Chick (1983, p. 130) explains the flaw in the empirical technique. It is also worth noting that the research environment was not ideal – discussions with representatives from large

greater optimism of the yield on future investment represented by a shift in the *mec* (Figure 10.1b).^{2,3}

Figure 10.1: Increases to investment in theory



In 10.1(a) investment increases to I_1 following a cut in the long-term rate of interest to r_1 . In 10.1(b) investment increases to exactly the same extent following a change in expectations represented by a shift in the mec_0 to mec_1 . As will be developed in the next section, the distinction between the two mechanisms underpins not only Keynes's theory of the economic cycle, but also his solution to the Economic Problem more generally.

companies that took place over dinner at college.

² In drawing such diagrams it seems most appropriate to put investment on the y-axis as it is the dependent variable.

³ It is attractive to reflect this optimism about the future as an optimism of profitability. However, this is not entirely satisfactory because the source of profits is broader than the revenue arising from future investment. For example, if there is a shift from excessive pessimism to excessive optimism, profits will initially grow as idle capacity is engaged rather than due to revenues from new investment. While it is clearly likely that growth in profits will encourage optimism, this is not the only possible determinate of a shift to the *mec*.

Before turning to a fuller description of these processes, the remaining two stages in the theory of aggregate demand must be outlined. Keynes's theory of consumer demand is based on a simple 'law':

The fundamental psychological law, upon which we are entitled to depend with great confidence both *a priori* from our knowledge of human nature and from the detailed facts of experience, is that men are disposed, as a rule and on the average, to increase their consumption as their income increases, but not by as much as the increase in their income. (CW VII, p. 96)

The proportionate increase in consumption is the marginal propensity to consume, (*mpc*), usually denoted by *c*. Expressing the law of consumption algebraically and in aggregate terms shows how, over any period, changes in aggregate consumption (*C*) depends on the *mpc* and changes to aggregate output (*Y*):

$$\Delta C / \Delta Y = c, \text{ where } 0 < c < 1 \quad (10.1)$$

Second, Keynes's theory of aggregate demand and the *multiplier* follow through combining the consumption theory with a national accounts identity (for a closed economy with no government and then expressed in terms of changes across some arbitrary period):

$$Y = C + I \quad (10.2)$$

$$\Rightarrow \Delta Y = \Delta C + \Delta I \quad (10.3)$$

then, by substituting for ΔC from (10.1)

$$\Rightarrow \Delta Y = c \Delta Y + \Delta I \quad (10.4)$$

$$\Rightarrow \Delta Y = \frac{1}{1 - c} \Delta I \quad (10.5)$$

As with most relations in Keynes's economics, this multiplier is a monetary relationship. It translates one for one from demand to expenditure, and shows the

effect of a change in investment expenditure on income.⁴ The investment and consumption theories are combined, with the investment multiplier a function of the *mpc*. Furthermore, the relation does not rely on an explicit functional form for any of the variables. The theory of aggregate demand is expressed in terms of changes from an arbitrary, or current, position; as addressed below, this is also the most logical way to interpret supply effects.

At this point, the assumption of a given money supply should be re-iterated. Keynes generally assumed that the supply of bank money would respond to changes in aggregate demand as defined above. He did consider relaxing the assumption (as noted in section 9.6): a demand for bank money that was not accommodated would feed back to raise the rate of interest and hence reduce investment demand. Nevertheless, assuming an accommodative supply of bank money is surely consistent with not only reality but also common sense; how otherwise would economic activity develop if the rate of interest was constantly under upward pressure?

The central question for aggregate supply is then: what proportion of a *change* in aggregate demand and hence income goes to quantities (volumes of products and numbers of employees) and what goes to prices (and wages)? The answer, as touched on in section 8.7, is simply a matter of supply and demand. Firms change price and output, and hence employment, according to the conditions of supply and to their anticipations of (to them) uncertain demand. Keynes's analysis assumed these key macroeconomic variables were determined in a short period where the supply of capital stock was given or fixed. In general, of course, a change in demand would lead to an increase in output and employment. And this is set in the wider context of the notion of 'unemployment equilibrium'. According to the *General Theory*, with insufficient aggregate demand, macroeconomic variables would be such that employment was not 'full', in the sense that at the prevailing level of wages the supply of labour would be greater

⁴ At the NDE Keynes claimed the value of the multiplier was between two and three (CW XXVII p. 392). In *GTOEIM*, he proposed that the multiplier for the US was "... less than 3 and probably fairly stable in the neighbourhood of 2.5" (CW VII, p. 128).

than the demand for labour. Any such employment outcome is reasonably regarded as an 'equilibrium' because the supply of goods would equal the demand for goods (in nominal terms). Similarly there are no necessary incentives for firms to change production, prices, employment or wages.⁵

Keynes also emphasised an additional notion of 'effective' demand, probably because he wanted to stress that demand was *effective* in creating supply (others, in particular Hobson, 1902, p. 29, had previously used the terminology). More specifically, he defined effective demand as the point where firms' assessment of the aggregate demand schedule met their aggregate supply schedule (CW VII, p. 25). In this way, as Chick has observed (1983, p. 65), Keynes defined effective demand in the context of a supply decision. It is also of note that aggregate demand itself is 'effective', in the sense that the multiplier equation defines the change in nominal expenditure and income that actually occurs, and that is then allocated between output and price (and margins) and wages and profits.⁶

At this point the essential concepts of Keynes's theory of aggregate demand and supply have been established. Matters can be developed by a necessary contrasting of the properties of Keynes's theory with those associated with the 'Keynesian' theory:

i. Movements in income are governed by changes to the rate of interest, *mec* or *mpc*. While government demand can be incorporated into the discussion in a simple manner,⁷ the baseline theory was sufficient to address the policy issues with which Keynes was primarily concerned.

ii. Hicks (1937) was the first to set out the Keynesian theory with investment as a *function* of the rate of interest: " $I_x = C(i)$ ". The Keynesian model suppresses the

⁵ Chick (1983, p. 21) has defined 'equilibrium' as a point of rest and a point where, for output, but not for labour, supply equals demand and entrepreneurs' expectations of demand are met.

⁶ If firms assess demand correctly as Keynes's assumed in Chapter 3 of *GTOEIM* (see Chick, 1983, p. 64), the intersection of the aggregate demand schedule and the aggregate supply schedule is equivalent to Keynes's point of effective demand. He relaxes the assumption of correct expectation in subsequent chapters.

⁷ $\Delta Y = (\Delta I + \Delta G) / (1 - c)$.

mec, and hence, as with liquidity preference, the role of uncertainty and expectation. As addressed in Chapter 3, Keynes's objection – precisely the right one – has been ignored:

At one time I tried the equations, as you have done, with *I* [income] in all of them. The objection to this is that it over-emphasises current income. In the case of the inducement to invest, expected income for the period of the investment is the relevant variable. This I have attempted to take account of in the definition of the marginal efficiency of capital. (CW XIV, p. 80)

Hicks acknowledged Keynes's point:

Of course I agree that it is expected income that logically matters; but the influence of current events on expectations (admittedly a loose and unreliable connection) seems to me potentially so important, that I feel much happier if it is put in and marked unreliable, than if it is merely talked about, and not impressed on the reader's mind by being put into the formula, which he will take down in his notes. (CW XIV, p. 82)

But *IS-LM* implicitly rejected any role for expectation.

iii. Although Keynes discussed a consumption function in great detail in the *GTOEIM*, he did not suggest integrating equation (10.1) to obtain the form $C=cY+b$, with c and b constants.⁸ This linear relation appears to have first emerged in differenced form (e.g. $C_t=\alpha Y_{t-1}$) in the course of the development of process analysis (see 8.7). Samuelson (1939) then used the technique to explore the relationship between the multiplier and the 'acceleration principle' (see viii below). Samuelson also estimated the first full linear consumption function as " $C=27.5+.54Y$ " in an annex to Hansen's *Fiscal Policy and the Business Cycle* (Hansen, 1941, pp. 253-6).

iv. Moreover, equation (10.5) relies neither on any specific functional form for the consumption function nor on a stable *mpc*. The value and potential stability of the *mpc* may be useful for other purposes – in particular when assessing the impact of 'public works' – but its stability is irrelevant in the context of this

⁸ Furthermore, a difference equation cannot be integrated in this way.

theoretical proposition. Furthermore, regarding the *mpc* as a constant has allowed a wider diminution of Keynes's theory of consumer demand. The *GTOEIM* explicitly argues that other factors such as taxation, confidence, the discount rate or even the long-term rate of interest might influence consumer demand (CW VII, pp. 91-5). It is not clearly stated in the *GTOEIM*, but these factors can be regarded as operating by *changing the marginal propensity to consume*. While the marginal propensity to consume may exhibit reasonable stability over some 'medium term', it is not necessarily a stable variable and certainly not a constant.

v. More generally, there is the argument that the model of activity in the *General Theory* can usefully be treated as a theory based on change. Keynes's theory does not appear to require the explicit treatment of a consumption *function*, but can, without loss of generality, be encapsulated in terms of changes from the existing position. The model permits change of expectation, the money supply, the rate of interest, the *mec* or *mpc*; these changes then lead to changes in output and/or price.

vi. As in (v), Keynes's *General Theory* does not assume fixed prices. In the 'Foreword' to Amadeo (1989, p. ix), Chick discusses the "assertion that in the *General Theory* prices are fixed":

How this ... notion could be believed is a mystery: in the *General Theory* there are constant reminders that expansion will entail an increase in prices in the case Keynes took as typical, diminishing returns – not to mention the demonstration in Chapter 21 of just what stringent conditions must be met for expansion to be consistent with price stability.

vii. The theory is not based on loanable funds. The rate of interest is a determinant of income and investment, not a determinate. While feedback from a change in investment to the rate of interest is possible (and explicitly addressed), it is of lesser interest than the causality in the other direction.

viii. The Keynesian 'investment function' is completely inconsistent with Keynes's theory of the economic cycle. To state the obvious, a fixed investment

schedule that ignores uncertainty and expectation, cannot underpin an economic cycle theory that depends on shifts to the *mec*. Instead, after Keynes's death, the 'Keynesians' adopted an alternative theory of the business cycle based on the 'acceleration principle'; this approach is best explained by a textbook:

An expected increase in output which generates a demand for additional capital stock leads to an increase in investment. The increase in investment causes output to rise by an amount equal to the increase in investment *times* the income multiplier. The increase in income causes investment to rise further, and so the multiplier accelerator process continues. (Levacic and Rebmann, 1976, pp. 250-1)

This theory had been long established in the literature, as Habeler's (1937) League of Nations work demonstrates:

The following authors have developed the acceleration principle – AFTALION, BICKERDIKE, BOUNIATIAN, CARVER, and MARCO FANNO. In recent years, it has been expounded most fully by J. M. CLARK, SIMON KUZNETS, and A. C. PIGOU. HARROD, MITCHELL, ROBERTSON, and SPIETHOFF have incorporated it into their account of the cycle as a contributory factor. (Haberler, 1937, p. 82)

Footnotes to the names in his text show the contributions published between 1903 (Carver in the *QJE*) and 1936 (Harrod in his *The Trade Cycle*). After publication of the *GTOEIM*, Kalecki (1937) and Kaldor (1940) in the UK, and Samuelson (1939) and Hansen in the US, incorporated the principle into their own analyses of activity.

The theory had nothing to do with Keynes. While *Collected Writings* record no relevant comments, the Kaldor papers contain a dialogue between Kaldor and Keynes. Kaldor submitted his 'A model of the Trade Cycle' (1940) to Keynes as the editor of the *EJ*. Keynes published the paper, but their correspondence shows that he did not sign up to Kaldor's accelerator-based approach:

My personal feeling about the article is that it is dangerous to assume that the credit cycle is wholly determined by the multiplier and acceleration principles, and that I is a function only of S [overstruck with a pencilled 'X']. I still prefer, when one is dealing with the general problem to have

regard to the relation between the marginal efficiency of capital and the rate of interest rather than to the acceleration principle taken in isolation. The acceleration principle is, of course, a very important determinant of the marginal efficiency of capital. But even if we regard the rate of interest as constant, which is in itself a considerable abstraction, it remains unsafe to omit other possible influences on the m e of c. (Keynes to Kaldor, 27 May 1939, Kaldor papers, file 3/30/118)

Following the last of these observations, the discussion now turns to Keynes's actual theory of the economic cycle.

10.3 The economic cycle in Keynes's economics: introduction

Keynes was from an academic tradition that recognised the economic cycle as a credit cycle. His early work discussed the widespread appeal of credit cycle theories due to Fisher (e.g. CW XIII, pp. 2-3) and Hawtrey (e.g. CW XI, p. 363). Keynes's contribution was to show that economic cycles were only *facilitated* by freely available credit; they were *caused* by dear credit. Based on the analysis of his *Treatise*, in June 1931 Keynes was emphatic about the cause of the great depression at the 'Harris Foundation' lectures in the United States. The first of these was entitled 'The Originating Causes of World-Unemployment':

We are today in the middle of the greatest economic catastrophe – the greatest catastrophe due almost entirely to economic causes – of the modern world. ... I see no reason to be in the slightest degree doubtful about the initiating causes of the slump. ...

The leading characteristic *was an extraordinary willingness to borrow money for the purposes of new real investment at very high rates of interest* – rates of interest which were extravagantly high on pre-war standards, rates of interest which have never in the history of the world been earned, I should say, over a period of years over the average of enterprise as a whole. This was a phenomenon which was apparent not, indeed, over the whole world but over a very large part of it. (CW XIII, pp. 343-5, my emphasis)

Peculiarly, in the light of its timing, the *GTOEIM* does not give prominence to his analysis of the economic cycle. The material comes as the first chapter of Book

VI, 'Short Notes Suggested by The General Theory'. The title, 'Notes on the Trade Cycle', reflects Keynes's stated intention:

To develop this thesis would occupy a book rather than a chapter, and would require a close examination of facts. But the following short notes will be sufficient to indicate the line of investigation which our preceding theory suggests. (CW VII, p. 313)

In taking this approach, Keynes did not fully integrate the cycle theory into his theory as a whole. There are two critical dimensions: real (here section 10.4) and monetary (10.5).

The real dimension concerns the trajectory of investment during the economic cycle, and the associated forces dictating that trajectory. In the short period, investment demand may be dominated by animal spirits. But there are underlying forces related to the potential yield of investment at each rate of interest that define whether any investment demand will be sustainable in a timeframe that looks beyond the short period. The discussion shows that to boost short-period demand without taking into account these considerations can lead to instability.

From the monetary perspective, the analysis defines a credit cycle insofar as an endogenous supply of credit or bank money meets the changing requirements of aggregate demand. More importantly, though, the real processes are reflected in monetary processes that are crucial to the transmission mechanism. The discussion in section (10.5) develops Keynes recognition of the role of dear money, and argues that the underlying monetary processes are the growth of corporate debt set against a capital market inflation. The collapse of this monetary inflation then leads to real collapse.

10.4 Real characterisation: the *mec* and 'longer-period' equilibrium

Keynes's discussion of the business cycle in the *GTOEIM* places primary emphasis on movements in investment caused by the 'animal spirits' of businessmen and portrayed theoretically as shifts to the *mec* schedule:

But I suggest that the essential character of the trade cycle and, especially, the regularity of time-sequence and of duration which justifies us in calling it a *cycle*, is mainly due to the way in which the marginal efficiency of capital fluctuates. The trade cycle is best regarded, I think, as being occasioned by a cyclical change in the marginal efficiency of capital, though complicated and often aggravated by associated changes in other significant short-period variables of the economic system. (CW VII, p. 313)

... I suggest that a more typical, and often the predominant, explanation of the crisis is, not primarily a rise in the rate of interest, but a sudden collapse in the marginal efficiency of capital. (*ibid.*, p. 315)

These passages, however, have no role for the rate of interest; this is introduced shortly afterwards. Without due emphasis, Keynes argued *that for each rate of interest there is an amount of investment that is in some sense 'correct'*. This proposition is made most explicitly in the following elaboration of the business cycle process:

... it is an essential characteristic of the boom that investments which will in fact yield, say, 2 per cent in conditions of full employment are made in the expectation of a yield of, say, 6 per cent, and are valued accordingly. When the disillusion comes, this expectation is replaced by a contrary 'error of pessimism', with the result that the investments, which would in fact yield 2 per cent in conditions of full employment, are expected to yield less than nothing; ... the boom which is destined to end in a slump is caused, therefore, by the combination of a rate of interest, which in a *correct state of expectation* would be too high for full employment, with a misguided state of expectation which, so long as it lasts, prevents this rate of interest from being in fact deterrent. A boom is a situation in which over-optimism triumphs over a rate of interest which, in a cooler light, would be seen to be excessive. (CW VII, pp. 321-2, my emphasis)

Here Keynes compared ‘excessive’ expectations of the yield of investment with this ‘correct state of expectation’ as a baseline. In terms of the *mec*, Keynes essentially argued that there is a ‘correct’ *mec* schedule against which other schedules, assessed in uncertain circumstance and influenced by various degrees of optimism, can be compared. This position constitutes a critical additional dimension to his theory that has been almost entirely overlooked. Furthermore, the dynamic of this economic cycle process goes beyond the short period that is the primary focus of the *GTOEIM*. The short-period analysis saw Keynes examine employment outcomes following a change in demand with *given* capital stock (as in 10.2). His study of the economic cycle is essentially a ‘longer-period’ analysis, and examines the eventual employment outcomes as a consequence of *changing* the capital stock. The two periods are analytically distinct and exhaustive. The short period is concerned with the production decision between output and price. The longer period is concerned with investment outcomes, setting expected against realised revenues and affecting employment through a longer-term impact on firms financial position.

In the short period, positions arising from changing investment demand, and hence aggregate demand, correspond to Keynes’s notion of ‘shifting equilibrium’:⁹ “we might make our line of division between the theory of stationary equilibrium and the theory of shifting equilibrium – meaning by the latter the theory of a system in which changing views about the future are capable of influencing the present situation” (CW VII, p. 293). The dynamic of the shifting equilibrium is defined by the outward shifts in the *mec* that cause investment, income and employment to increase. This expansion phase can continue for a prolonged period of time, with the *mec* possibly subject to a series of outward shifts. Eventually, however, in a manner which is the subject of the next section, the *mec* will shift to the left. This leads to the contraction in investment that defines the ‘recession’ or ‘depression’ phase of the economic cycle.

⁹ This terminology is used on the second page of Chapter 21, ‘The Theory of Prices’. Kregel (1976) has also adopted the terminology.

This shifting equilibrium, or more helpfully, shifting-demand equilibrium, should then be compared with an underlying position based on the 'correct' *mec*. This underlying position might reasonably be regarded as special kind of longer-period equilibrium. To use such terminology requires the setting aside of any connotations from classical economics. In particular, this use of longer-period equilibrium does not refer to a position where labour market forces assert or work themselves out, as in the classical labour market theory, nor one such that capital converges to some balanced growth path, as in neo-classical growth theory. The longer-period equilibrium of relevance here is one based on underlying yields of investment – or rates of profit. The equilibrium exerts pressure on any state of affairs according primarily to whether investment yields were over-optimistic. In this way there is a 'real constraint' to the economy described in the *General Theory*: in any given situation there is an underlying limit to the amount of investment that can be profitably implemented. Such a situation and process accords strongly with an intuitive notion of macroeconomic equilibrium.

Adopting the terminology more formally, it is argued that Keynes's theory of the economic cycle is a theory of shifting-demand equilibrium set against a longer-period equilibrium. But, in a way that is of fundamental importance, the longer-period equilibrium is not unique. The critical determinant of this longer-period equilibrium is the long-term rate of interest. For each long-term rate of interest there is an associated longer-period equilibrium level of investment and hence employment. (The *mpc* is also a determinant of the longer-period equilibrium, and one that can also be influenced by the authorities, but considerations of space mean that this factor cannot be developed here.) Lastly, this approach does not mean the classical real factors are irrelevant:

We take as given the existing skill and quantity of available labour, the existing quality and quantity of available equipment, the existing technique, the degree of competition, the tastes and habits of the consumer, the disutility of different intensities of labour and of the activities of supervision and organisation, as well as the social structure including the forces, other than our variables set forth below, which determine the distribution of national income. This does not mean that we assume these factors to be constant; but merely that, in this place and

context, we are not considering or taking into account the effects and consequences of changes in them. (CW VII, p. 245)

Real factors are simply of less interest and importance to explain the historical performance of national economies. Similarly, the fundamental conclusion of Keynes's economics is that policy should concentrate on the monetary factors rather than these real factors.

Keynes's notion of unemployment equilibrium can be more fully understood in the light of this interpretation of longer-period considerations. On one hand, the notion of a 'correct' *mec* schedule/longer-period equilibrium means that for each rate of interest there is a unique appropriate level of investment, leading to a unique appropriate level of employment. The rate of interest is then seen to be absolutely central to the employment equilibrium of a free market economy. The classical theory is turned on its head, with macroeconomic equilibrium determined by the rate of interest, not the rate of interest determined by the macroeconomic equilibrium. This longer-period equilibrium is a *multiple* equilibrium in the sense that it depends on what long-term rate of interest is set or prevails. The economic cycle process then comes about through the fact that in a monetary economy there is nothing to guarantee that the economy will operate according to such a longer-period equilibrium. The normal state of a free market economy will be that agents' expectations of the future are either excessively optimistic or pessimistic.¹⁰ An economy will often operate in a 'boom' where so the amount of investment is excessive according to the longer-period equilibrium defined by the rate of interest.

The earlier Figure (10.1) can be used to summarise the process, with the rate of interest, r_0 , regarded as defining an equilibrium volume of investment, I_0 , measured on mec_0 , in this context defined as the 'correct' *mec* schedule. The expansion phase of the business cycle is then illustrated by the shift to mec_1 , the schedule reflecting firms' excessively optimistic assessments of the yields on investment, leading to investment underpinning effective demand of I_1 .

¹⁰ Such 'animal spirits' are neither rational nor irrational. Rationality in the face of an uncertain

Before moving to a fuller exploration of the monetary dimension to the economic cycle, the other theoretically possible ‘states’ of a free market economy need to be set out. While the most common state is likely to be investment demand not equal to the longer-period equilibrium, demand held at the level of the longer-period equilibrium is a theoretical and perhaps practical possibility. Such a state can be consistent with short-period unemployment equilibrium (as for example in CW VII, Chapter 17); to borrow Joan Robinson’s terminology, this might be referred to as ‘tranquillity’.¹¹ The second is a special case, when tranquillity corresponds to full employment; this might be referred to as ‘bliss’. The complex coincidence of factors required for this outcome is the state of affairs automatically assumed by classical economists, but is only one case, the ‘Special Case’, of Keynes’s *General Theory*.

Keynes’s theory of the economic cycle arises from the fact that the normal condition of a free market economy is neither bliss nor tranquillity. On one hand, failed policy and economic theory continue to ensure that the rate of interest is too high (and the distribution of taxation such that the *mpc* is too low); on the other hand, the animal spirits of producers and entrepreneurs similarly ensure that the dominant feature of free market economies are the waves of optimism and pessimism that define the economic cycle.

10.5 Monetary characterisation: revenue, capital market and debt inflations

Implicit in the notion of economic cycle theory is that the operation of an economy can ‘deny’ a longer-period equilibrium for a very prolonged period, but

future remains to be defined.

¹¹ Chick (1998, p. 16) observes “A characterisation of long-period equilibrium is expressed by Robinson (1965), though she preferred to call it ‘tranquillity’: ‘We may speak of an economy in a state of tranquillity when it develops in a smooth regular manner without internal contradictions or external shocks, so that expectations based upon past experience are very confidently held, and are in fact constantly fulfilled and therefore renewed as time goes by, ...”.

cannot do so indefinitely. A theoretical analysis therefore requires identification of a transmission mechanism through which equilibrium is restored. This section develops Keynes's model of the economic cycle and argues that the longer-period equilibrium exerts its pressure through the consequences of an excessive build-up of debt and its counterpart, capital market inflation. This mechanism provides a justification for the shift from expansion to recession that was discussed by Keynes only in terms of a shifting *mec*.

In order to see how this process operates, the perspective is changed from the 'real' perspective of demand and long-period equilibrium, to a monetary or financial perspective. More specifically, the examination turns from the expectations that dominate when investment is put into place, to 'outturn' as revenue streams come in. These revenue flows will either validate or invalidate original expectations. In the case of tranquillity, with expectations correct, revenues validate expectations. Otherwise, revenues will not validate expectations. The latter situation can be further subdivided according to whether revenues are above or below expectations. The situation of most interest, of course, is when revenues fall below expectations in an excessive expansion.¹²

Strictly, what might be called 'validation by revenue' processes can only be judged over the full duration of an investment. The outturn of the stream of revenues for any marginal investment will then either have met or failed to have met the cost of the finance for putting that investment into place. In practice, however, it is unlikely that businesses will need to wait until the end of the investment repayment process to appreciate that revenues will not meet costs. Firms' cash-flow calculations for the duration of an investment will have assumed a certain profile of returns over time. The extent to which excessive investment is revealed at an early stage will depend on this profile. At the extreme, if all returns are expected in the final period then firms will not know until this period. For most projects it might be reasonable to assume that returns

¹² Revenues do not fall short for every firm in the economy. Individual firms will both over-estimate and under-estimate profits; the correct *mec* schedule is an aggregate concept and it is only expectations in aggregate that need be regarded as correct or otherwise.

are likely to be linear (with perhaps a positive gradient) across the investment. In these cases, the excessive nature of the investment will be revealed from fairly early on, and firms may encounter cash-flow problems according to a similar timing. In the aggregate, it is likely that these types of projects will dominate. To reflect this, 'outturn' will not be used in the strict sense of the stream of revenues over the whole life of the investment, but more loosely to reflect a position where an investment has been put into place and is generating revenue. Jumping ahead, it may be that in some cases banks are willing to re-finance loans for as long as they believe that a company's shortfall in revenues is due to incorrectly profiled revenues rather than a miscalculation of total revenues. In the limit, this would mean that re-financing would take place until very late in the life of any investment.

To examine the consequence of failing revenues, the perspective is changed for a second time: from 'outturn' to repaying finance. Tranquillity, the stable situation where firms' investments yield according to expectation, is dealt with simply: under such circumstances the aggregate of loans taken out to finance the investment can be repaid exactly. Such a state of affairs is not cyclical; employment will be stable at the rate defined by the long-period equilibrium. The finance perspective on an excess expansion explains the economic cycle. Here, failure of revenues to match expectations provides a theoretical justification for the transition from expansion to contraction.

As argued, the expansion phase of the economic cycle occurs as the 'animal spirits' of business-people (and the financial community) lead to excessive expectations of the yield of future investment. Reflected theoretically by a rightward shift in the *mec*, the consequence is greatly increased investment. If the expansion follows a period of subdued activity with capacity idle (as is likely), the increased utilisation of this capacity is also likely to lead to rapid acceleration in profits. There will also be effects in the financial markets that may be critical to the development of the cycle. In particular, capital market inflation (CMI)¹³ will be a consequence of any credit-fuelled excessive expansion. The identity between

saving and investment means that all new investment financed by credit will create an equal amount of saving. By definition, in an excessive expansion, the pace of credit creation and therefore saving creation will be at least at the pace of investment. These newly created savings will seek the high returns apparently offered by financial investments. As a consequence, prices will be pushed up on various financial instruments, most obviously equities, but equally, corporate bonds. The likely consequence is that the prices of financial instruments will grow at the pace of investment during the expansion. Indeed, as assets must equal liabilities, a theoretical aggregate measure of capital market inflation should grow at exactly this pace.¹⁴

In turn, CMI will widely (but erroneously) be interpreted as indicating investors factoring in the excessive growth in economic activity as permanent. CMI will thus serve to affirm further the validity and sustainability of the state of affairs to investors and policymakers alike and no doubt will encourage even greater optimism. As euphoria about the situation spreads, additional increases in optimism may lead the *mec* to shift even further to the right. This period of accelerating investment will continue until there is either some reining-in of expectations or until firms' revenues begin to display evidence of the excessive expectations. At this point, firms will begin to have difficulty meeting the scheduled repayments on loans or debt instruments. Keynes's theory as depicted here is categorical about the aggregate amount of investment that will eventually face such problems. Referring back to Figure 10.1 (with mec_0 again defined as the correct schedule), investment projects represented by the difference between aggregate investment demand and the long-period equilibrium for the rate of interest, $I_1 - I_0$, will, by definition, be such that revenues fail to meet expectations. Essentially the volume of investment $I_1 - I_0$ is excessive and is, from this perspective, 'bad' investment. In this way, the excessive expansion is unsustainable from the moment that investment demand exceeds the long-period equilibrium level.

¹³ Toporowski (1999) coined this phrase.

¹⁴ Such measures do not exist; CMI, if not ignored by policymakers, tends to be neglected. In reality CMI simply reflects easy money.

If it is assumed that firms have no idle resources, then, as revenues fail to meet expectations, they will be faced with two choices: cost savings or additional borrowing. A number of cost-saving options will exist, most obviously cutting back future investment plans, seeking alternative sources of raw materials, raising prices or reduce quality. More painfully, firms could cut wages and jobs. However, for many firms, the easiest option will be further borrowing – effectively distress borrowing – to finance the inevitable shortfall between expectations and actual revenue.¹⁵ This type of borrowing, which will henceforth be called *debt-financing*, should be seen as distinct from borrowing to finance investment in the first place. In a monetary economy the process of debt-financing can continue for a very long time. As a consequence of both the debt financing and the high borrowing to finance the excessive investment in the first place, an economy in an excessive expansion phase will be underpinned by a steadily increasing level of corporate debt – a *debt inflation*.

The sources of debt-financing will vary but the generic types are the generation of new credit and portfolio reallocation. New credit creation may be further subdivided between that which goes directly to companies and that which goes indirectly to companies through other financial institutions. An example of the latter will be banks granting loans to various ‘funds’ which then purchase newly issued corporate debt instruments. In the former case, when new credit goes directly from a bank to a firm, the operation is ‘merely’ a balance sheet operation. Existing bank assets are paradoxically ‘protected’ by increased extension of debt-financing loans, for the failure of a client company is not in the bank’s interest. Continuing support of troubled companies, no matter how apparently irrational or counter-intuitive, will be behaviour that is endemic to the banking system. Furthermore, credit creation for debt financing will also contribute to CMI in exactly the way discussed earlier.

Debt financing will keep workers in jobs which would not exist if the economy

¹⁵ Such borrowing will be easier for large companies. These developments will therefore contribute to a concentration of activity in larger firms: i.e. to the monopolisation of activity.

was operating according to the long-period equilibrium. Other money will come to companies through a reallocation of existing stocks of wealth, with households (or financial corporations on their behalf) shifting from safer investments (including money) to equity and corporate bonds, and from other operations such as debt-equity exchanges and rights issues. At the same time, other developments in the course of an excessive expansion will also work towards generating increased demand for corporate borrowing instruments. For example, excessive expansion combined with 'sound' budgetary principles is likely to mean that the government will move into surplus. As a consequence it will issue fewer securities; and investors whose portfolios demand a certain proportion of long-term debt instruments will be directed towards the corporate sector just as firms' demand for debt financing is accelerating.

Particularly important considerations follow from wider profit opportunities created for financial institutions. These organisations will make substantial earnings through their role in arranging various issues such as initial public offerings, corporate bonds and debt-equity exchanges, as well as through their role in merger and acquisition activity which will also be an important feature of the credit cycle. Later in the excessive expansion, debt-restructuring packages and innovative financial instruments will be offered in exchange for higher interest payments. It is the good fortune for many financial institutions that commission will be earned whether or not any of these transactions make any sense from the points of view of the parties brought together, or of the economy as a whole.

A particularly important aspect of this type of finance will be hedge fund operations, where high risk will be taken for very high reward. Between 2000 and 2004 there has also been widespread use of credit-default swaps, whereby financial organisations are able to sell on the risk of credit default.¹⁶ Essentially, any such debt-financing operations transfer the liabilities of the corporate sector into assets of other sectors, in particular the banking, financial and household

¹⁶ See for example the *Financial Times* 25/9/01 supplement on derivatives; an article on regulation reports the then Bank of England Deputy Governor David Clementi warning "these instruments might equally be used to concentrate risk as to disperse it".

sectors. Ultimately, because the source of the debt is debt-financing, the assets created are assets that reflect bad debt and are worthless. Because the predicament has been caused by excessive expectations, debt financing merely serves to put off the inevitable consequence of a level of investment greater than that permitted by the long-period equilibrium. Whether firms are taking out bank loans or issuing corporate debt, eventually they will not be able to meet the interest payments and they will begin to default. The debt is by definition debt that firms will not – not ever – be able to repay out of current investment projects.¹⁷

On the face of it, however, the expansion will appear sustainable. Firms, optimistic of the restoration of financial health in the future, will find that their debt financing is taken up and that banks are willing to issue debt-financing loans. Fundamental to this depiction of the economic cycle is that an excessive expansion can last for a long time – experience suggests for as many as twenty years – but cannot be sustained indefinitely.¹⁸

The boom can be prolonged for precisely as long as demand exists to take up corporate debt financing. The practical limitation to this process is therefore investors' belief that new debt issued is sustainable, i.e. that firms' future revenues will ensure that they are able to meet their obligations on that debt. Sooner or later investors will realise that the additional debts they are being asked to take up, and those that they already hold, are *bad* debts. At this point there will be an erosion or a collapse of financial confidence. Evidence suggests that towards the end of a boom, the long-term interest rate on corporate debt will

¹⁷ The processes discussed here are closely related to those that Hyman Minsky outlined in his 'financial instability hypothesis'. Minsky analyses an excessive investment expansion based on optimism and proposes a sustainability criterion based on revenues such that "the profit flows must be sufficient to validate debts" (Minsky, 1985, p. 37). He sets out three financial 'postures' on the part of firms as 'hedge', 'speculative' and 'Ponzi' finance. The latter is most closely related to the discussion here. "3. 'Ponzi' finance. The cash flows from assets in the near term fall short of cash payment commitments and the net income portion of the receipts falls short of the interest portion of the payments. A Ponzi finance unit must increase its outstanding debt in order to meet its financial obligations" (Minsky, 1985, p. 43). The economy described in the main text is one where Ponzi finance becomes endemic. However the transmission mechanism in Minsky's model differs; he sees real collapse brought about by the effects of rises in the rate of interest to tackle an inevitable inflation.

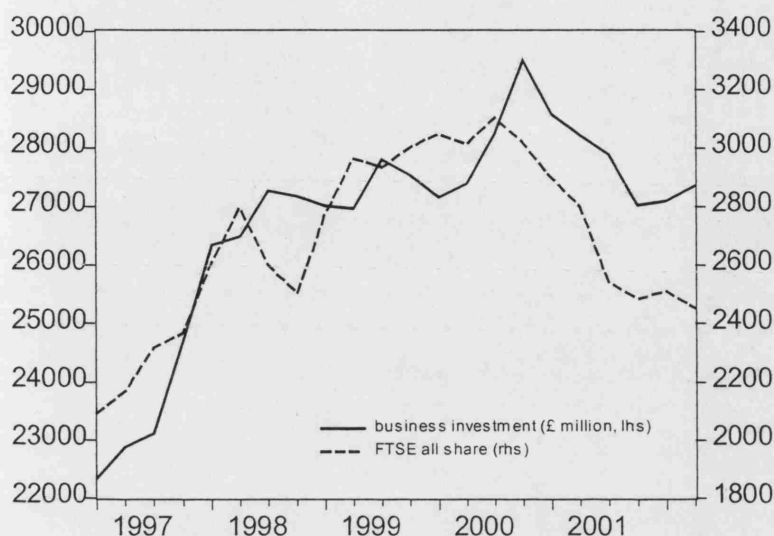
¹⁸ The evidence of experience suggests that policymakers will help to prolong the situation by socialising debt or by bailing out defaulting companies and failing financial organisations, as well as by indulging in extensive public works programmes.

increase, and spreads between corporate debt and Government debt will widen, reflecting an increased perception of *risk* on investors' part. The precise transmission is unclear. In financial markets there will be two key events. Capital markets will begin to deflate, i.e. stock exchanges and bond markets will crash (the evidence of present experience suggests that they will neither peak at the same time nor deflate at the same pace). There will be a credit crunch to the corporate sector – it may even be that this event triggers the capital market deflation (CMD), particularly if banks have a crucial role in debt financing. Keynes considered that these events happened with some force:

It is of the nature of organised investment markets, under the influence of purchasers largely ignorant of what they are buying and of speculators who are more concerned with forecasting the next shift of market sentiment than with a reasonable estimate of the future yield of capital-assets, that, when disillusion falls upon an over-optimistic and over-bought market, it should fall with sudden and even catastrophic force. (CW VII, pp. 315-16)

The 'real' events will happen in parallel. From the point at which firms can no longer access money, they will no longer be able to re-finance debt. At this point they will have to seek the only alternative ways to meet their costs: investment cuts (probably first, with implications for employment in the investment goods industries) and then direct employment cuts. The effect of CMD on firms' balance sheets may also be important here. A sharp deterioration in the balance sheets is, in itself, likely to force cutbacks in investment. It may be that this is the primary transmission mechanism of the failing confidence, but this can only be a matter for conjecture. Nevertheless, it is clear that the UK and US investment booms of the late 1990s saw investment collapse in line with the stock market (Figure 10.2 shows UK figures).

Figures 10.2: UK business investment and equity prices



In terms of Keynes's theoretical analysis, there will be two key phenomena. As these financial developments occur, the *mec* will be shifting towards a less optimistic position. Firms will know that their revenues from investments made during the expansion-phase are failing to meet the expectations that led them to borrow in the first place. They will re-adjust the *mec* to a more realistic position. At the same time the failure of confidence in financial markets will cause liquidity preference and risk premia to increase, leading to a sharp rise in the rate of interest. The combination of these effects will cause sharply reduced effective investment demand and hence output and employment.

Lastly, there is the role of prices outside the capital market. While the classical theory offers inflation the key role in explaining the transition from boom to bust, it is argued here that the most important phenomenon is likely to be a price deflation that is endogenous to the economic-cycle processes outlined above. Once contractionary forces have begun to bite, any cutbacks in employment, costs, wages, raw materials and investment will all lead to reduced aggregate demand and hence excess supply. Through the laws of supply and demand, this will cause downward pressure on prices. As capacity becomes seriously excessive, prices may start to fall. At this point, the 'debt-deflation'

considerations advanced by Fisher (1933) become relevant.¹⁹ In particular, the real rate of interest will begin to rise, and the debt burden will increase relative to the costs of the other factors of production.²⁰

In sum, the financial perspective characterises the economic cycle in two phases: an expansion that is accompanied by the company sector in steadily increasing indebtedness, and a contraction or recession that is the bursting of this debt inflation. The 'force' that brings an economy operating outside its long-run equilibrium back to (or rather back through) that equilibrium, is debt. The degree of indebtedness is then a measure of the excess of the expansion and will equally prevent the automatic recovery in the way predicted by classical economics.

10.6 Cheap money as the solution to the economic cycle

The cause of the economic cycle is a rate of interest that is too high for a level of investment consistent with full employment, compounded by a monetary system that finances excessive investment for a prolonged period. Older terminology might be usefully resurrected: the economic cycle is caused by money which is *easy*, that is, readily available, but *dear*. For Keynes, cheap money was the solution to the economic cycle:

¹⁹ Fisher's central argument was as follows: "I venture the opinion, ... that, in the great booms and depressions, ... [the] two dominant factors, ... [are] *over-indebtedness* to start with and *deflation* following soon after; ..." (Fisher, 1933, pp. 340-1). His paper examined a chain of ten events as the debt build-up process was reversed (*ibid.*, p. 343). Ultimately, however, he saw matters based on real not monetary cause. "The over-indebtedness hitherto presupposed must have had its starters. It may be started by many causes, of which the most common appears to be *new opportunities to invest at a big prospective profit*, as compared with ordinary profits and interest, such as through new inventions, new industries, development of new resources, opening of new lands or new markets" (Fisher, 1933, p. 348). (He did not set his position against Keynes's emerging views, even though the timing of his paper was such that he would surely have been aware of the Harris Foundation lectures.)

²⁰ This interpretation does not rule out a role for inflation. A particular circumstance will be when credit extension to households is faster than the growth in production. Under these circumstances (those of concern to Minsky, footnote 18), prices may rise and 'corrective' interest-rate policy will lead to recession as firms interest payments on their debt become unbearable. The transmission mechanism, however, is still debt.

... the remedy for the boom is not a higher rate of interest but a lower rate of interest! For that may enable the so-called boom to last. The right remedy for the trade cycle is not to be found in abolishing booms and thus keeping us permanently in a semi-slump; but in abolishing slumps and thus keeping us permanently in a quasi-boom. (CW VII p. 322)

The cheap money solution to the economic cycle achieves a high level of investment by changing the long-period equilibrium of an economy rather than through the excessive expansion process that must be temporary. Keynes's substantial and far-reaching conclusion is that the normal state of a free-market economy can be a level of activity that is almost universally regarded as transitory and unsustainable. The description is again exactly illustrated on Figure 8.1, with Keynes arguing that the higher level of investment (the 'so-called boom'), I_1 , should be achieved with a reduction in the rate of interest from r_0 to r_1 (the cheap money solution) rather than a shift in expectations from mec_0 to mec_1 . Keynes's theory of the economic cycle argues that high aggregate demand under dear money will only be temporary and in the longer term may be catastrophic. Under cheap money, if the economy was in a state of tranquillity, the higher level of demand and hence activity could be permanent. Furthermore, with notions of 'natural rates' redundant in a multiple-equilibrium system, there is no *a priori* reason to reject the proposition that a volume of investment consistent with full employment might be achieved.

However, while a cheap money policy allows an economy to operate according to a higher long-period employment equilibrium, it does not immediately follow that such an equilibrium must be more stable than the equilibrium in the dear-money case. From a theoretical perspective, in a cheap money economy it is not possible to rule out substantial shifts in the *mec* leading again to debt inflations and financial collapse. Keynes did not address this issue in the *GTOEIM*. It might be plausible to argue that such conditions are more unlikely in the cheap money than the dear money case. In particular, excessive expectations might be less likely in an economy already operating to high performance and one where expectations were not distorted through routine manipulation of the short-term interest rate. Similarly, the consequences of excessive expectations might not be so severe in a

cheap money economy because the cost of any associated debt would be cheaper. However the role of uncertainty and expectation in the economic process mean that no watertight conclusions can be drawn in this way. What is certain though is that dear money does not prevent easy money, and dear money policy will see excessive expansion followed by recession. Rejecting cheap money on any of the above grounds is, to use an expression of Lerner's (1964, p. 222), "to refuse to be cured because that will make it possible to become sick again".

A further challenge to cheap money policy is the likelihood of inflation. Classical analysis would see an inflationary threat from a level of employment higher than the equilibrium or natural rate. With the economy understood as a multiple-equilibrium system, the concern is simply whether capacity/supply constraints will lead to inflation. Furthermore, even if inflation occurs, Keynes's theory demands a change in perspective over its interpretation. In a multiple-equilibrium system it may be that inflation does increase, but this increase is normally set against increased output and employment.

There is lastly Keynes's claim that the classical economics was equivalent to a 'special case' of *The General Theory*. The general case of Keynes's theory is that a free market economy can be in equilibrium at any level of employment. The special case is an economy operating with the rate of interest (and *mpc*) set such that full employment or economic bliss is achieved. For this state of affairs to be equivalent to the case depicted in the classical theory, one is compelled to argue that in the absence of shocks the position will be stable and hence excessive expectations do not arise. An economy operating in the special case experiences the perfect operation claimed by the classical theory. Nor does perfection have a role for excessive inflation. Keynes's theory simply exposes how the perfect operation depends on the rate of interest, *mec* and *mpc*; while its achievement is far from automatic, it is a possible state of affairs.

10.7 Evidence and Application

While Chapter 1 of the *GTOEIM* warned that the classical theory was ‘disastrous if we attempt to apply it to the facts of experience’, Keynes’s discussion was never explicit about the specific nature of and reason for this disaster. He was writing not for us, but for an audience that was familiar with his wider policy stance through his very public activism. According to this interpretation, the *General Theory* formalised and substantiated this public position: that the Economic Problem could be solved by a reduction in rates of interest. Nevertheless, in the *GTOEIM* itself, Keynes did not specifically apply this conclusion to the cause of the great depression, nor did he re-evaluate his earlier policy stance in its light.

As discussed in section 2.2, Keynes did emphatically re-iterate his rejection of the gold standard in the *GTOEIM*; however, he did not go on to look at an appropriate international policy. But the implication of the *General Theory* is quite clear. International financial architecture should allow a country to set low rates of interest across the spectrum. This built on rather than refuted the policy stance he had taken since 1913. Keynes was originally concerned that the gold standard led to inappropriate domestic policy through inappropriate movements in short rates. He attempted to develop an exchange policy that ensured an elastic supply of currency to meet the needs of trade without relying on movements to short-term interest rates. With the *General Theory*, the appropriate domestic policy was developed, but the implications for exchange systems remained the same. They should not involve movements to short-term rates. In this way the *General Theory* provided further affirmation for the currency management systems that he had advocated and that were put in place in the early 1930s. While he went on to develop these arrangements for his Clearing Union, the underlying motivation and requirements remained the same. However, with the emphasis on the long-term rate, as in Chapter 9 here, the case for capital control came to the foreground. The lack of a formal statement of this requirement is a serious omission from his published works.

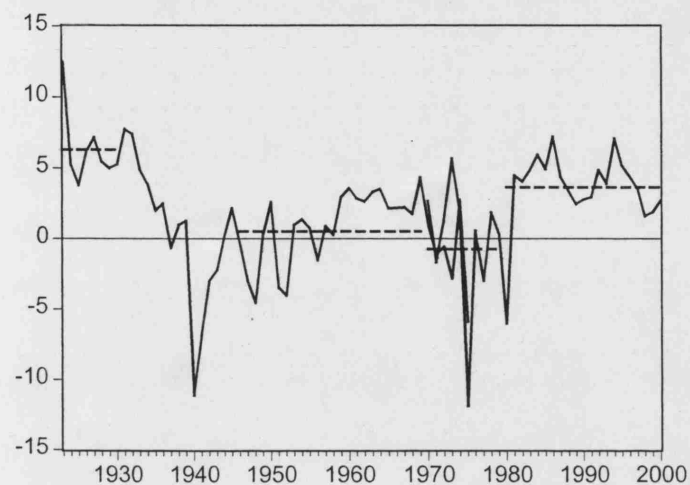
In terms of re-evaluating economic events, the *General Theory* made the same fundamental shift of emphasis from short- to long-term rates of interest. The underlying equilibrium and hence level of employment was determined by the long-term rate of interest. But Keynes did not review the role of the short rate in the light of this change of emphasis. It is likely that the main transmission mechanism of the short rate is through 'animal spirits'; and hence it functions as a determinant of *shifts* to the *mec*. History suggests this role is not trivial.

In terms of the underlying equilibrium, the long-term rate of interest data on Figure 10.3 permit a fuller re-evaluation of economic history through the twentieth century.²¹ But this must be complemented with an understanding of the discount rate policies on the part of the monetary authorities to aid interpretation of short-period outcomes.

²¹ Given the lack of emphasis on the role of the rate of interest, the data available are rather limited. These show UK real government rates given the relevance to Keynes himself, and US corporate rates as most relevant to the actual level of business activity. US rates can also reasonably be assumed to set the benchmark for borrowing rates across the world.

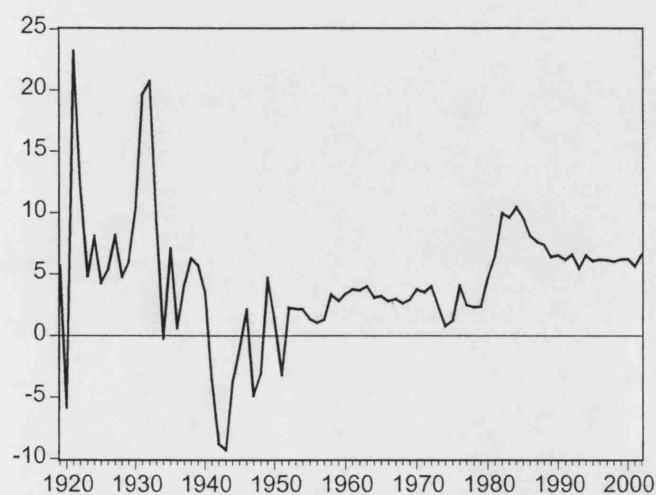
Figure 10.3: UK and US real long-term interest rates, twentieth century

a. UK government bonds



Sources: Friedman and Schwartz (1982); Bank of England, Monetary and Financial Statistics; OECD Main Economic Indicators database for deflator

b. US Corporate bonds



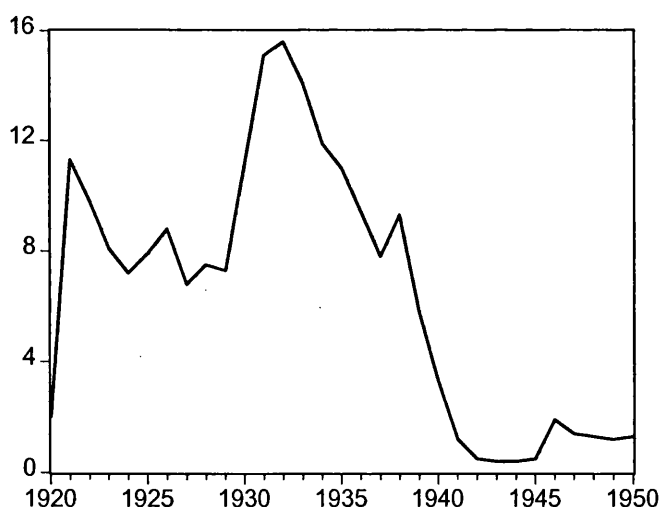
Interest on Moody's BAA corporate bond from Federal Reserve website
GDP deflator from Friedman (1982) and OECD Main Economic Indicators databases

The *General Theory* substantiated and formalised the conclusion Keynes first aired at the Harris Foundation Lectures: that the underlying cause of the great depression was the high long-term rates of interest that prevailed throughout the 1920s. In the US the gold standard permitted an easy Federal Reserve discount rate policy and high ‘animal spirits’. This led to an excessive expansion of investment. As Fisher’s (1933) ‘The Debt Deflation Theory of Great Depressions’ indicates, eventually the US economy collapsed in the wake of an unprecedented volume of private debt.²² France, returning to gold as a seriously devalued rate, and Germany, with a new currency, saw similar phenomena. No doubt the same was true of other gold standard economies. In some sense, Britain stood apart. The return to gold at an overvalued rate for sterling led to high short-term rates standing in the way of ‘animal spirits’ for the whole of the 1920s.

Recovery for all countries was critically dependent on the initiatives of monetary reform that Keynes advocated. Unemployment data from the US and UK, on Figures 10.4, show improvements beginning in 1932 and 1933 respectively.

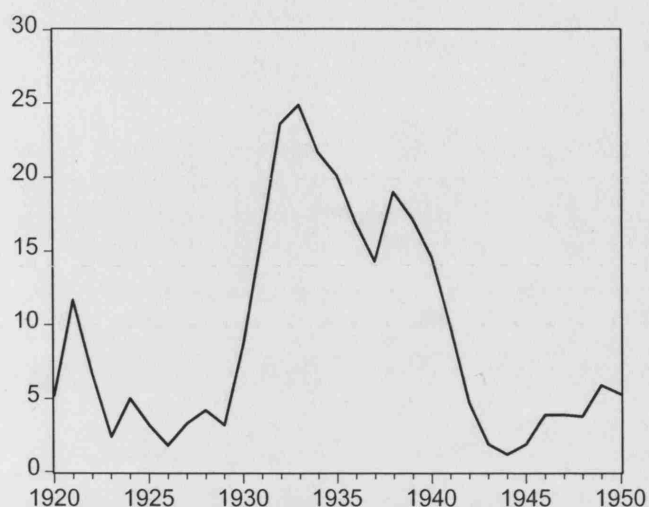
Figure 10.4: Britain and US unemployment, 1920-50

a. Britain (source: Feinstein, 1972)



²² Fisher cited ‘internal debt’ figures at about 200% of GDP. Annex 10.1 sets these estimates against the debt accumulated over the past thirty years.

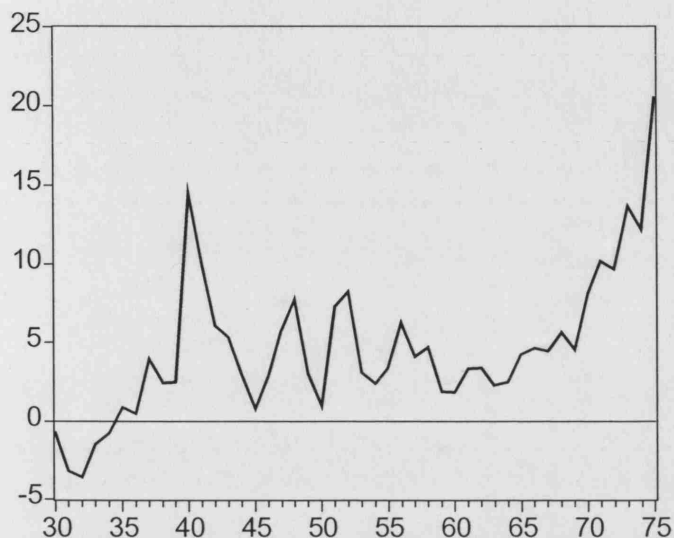
b. US (source: US Bureau of the Census, 1976)



After a brief setback in 1938, progress resumed, in part driven by preparation for war. Then, from Britain's perspective, deliberately setting the long-term interest rate at three per cent facilitated the successful management of W.W.II so that national resources were utilised to a surely unprecedented extent.

In the light of wartime experience, at the 1945 National Debt Enquiry (NDE) Keynes set out a detailed proposal for British monetary policy in the post-war era, just as he had tried to do for the world at Bretton Woods. While the policies were never genuinely adhered to, as Figures 10.4 show, post-war economic policy did preserve relatively low real interest rates around the world. R. F. Kahn has referred to the period as a 'Bastard Golden Age': "The possibility of a Bastard Golden Age turns on the absence of any *progressive* tendency towards the easing of the state of finance, and, more particularly, towards a lowering of rates of interest and of yields on ordinary shares" (Kahn, 1972, p. 201; my emphasis). The relatively cheap money that did prevail should, according to this interpretation of the *General Theory*, be regarded as the primary cause of the improved performance – the high investment, low unemployment and abatement of the economic cycle – of the world economy during this period. In turn, the Bastard Golden Age should be regarded as providing a degree of affirmation for Keynes's diagnosis of the Economic Problem. Moreover, for the large part of the era, inflation was relatively low (Figure 10.5).

Figure 10.5: UK GDP deflator, annual growth



At the start of the 1970s, the monetary reforms of the post-depression/post-war world began to be dismantled. Bretton Woods was abandoned and credit was liberalised alongside a phenomenal boost to demand from both monetary and fiscal policy (see Kynaston, 2001, pp. 429-81). In the UK real interest rates on government debt were allowed to become negative (Figure 10.4). Excess demand, inflation and real deterioration were inevitable consequences.

The 'rejection' of 'Keynesian' economics by policymakers and the academic economics profession alike coincided with the return of dear money under the aegis of full financial liberalisation. Modern classical theory has been powerless to explain these dear rates as anything but 'natural': "[w]e find that high real rates since 1980 seem to be a return to a long-run norm, ..." (Chadha and Dimsdale, 1999, p. 17). In contrast, this interpretation of the *General Theory* leads to the conclusion that dear money has simply been caused by the abandoning of deliberate attempts and institutional arrangements to hold interest rates low. The 'real' effects have been exactly as predicted. The world economy has operated according to a significantly lower utilisation of resources than in the bastard golden age. The ILO (2003, 'overview') estimated that total global

unemployment at the end of 2002 was 180 million (up by 20 million since the start of 2001), and provided estimates of unemployment rates by region (these estimates underpin the analysis on Table 10.1 below).

Table 10.1: Global unemployment rates by region

	2000	2002
Asia and the Pacific	3.8	4.2
East Asia	3.2	4.0
South-East Asia	6.0	6.5
South Asia	3.4	3.4
Industrialised countries	6.1	6.9
Latin America and the Caribbean	9.7	9.9
Middle East and North Africa	17.9	18.1
Sub-Saharan Africa	13.7	14.4
Transition economies	13.5	13.5

The ILO summed up: “The combination of higher unemployment and widespread working poverty signals pervasive worldwide employment problems” (*ibid.*).

The financial and cyclical effects have been equally pronounced. While the first half of the liberalisation period saw inflation continuing to pose a threat, more important are the conditions of financial instability and deflation that are arguably becoming endemic. Davis (1999) studied 30 episodes of financial market instability (see Table 10.2).

Table 10.2: Selected Episodes of Financial Instability (1933-1998)

1933	USA Great Depression
1970	USA Penn Central
1973	UK secondary banks
1974	Germany Herstatt
1982	LDC debt crisis
1984	USA Continental Illinois
1985	Canada regional banks
1986	FRN market collapse
mid-80s	USA Thrift crisis
1987	Stock market crash
1989	USA junk bond market
1989	Australian banking problems
1990	Swedish CP crisis
1990	Norwegian banking crisis
1991	Finnish banking crisis
1991	Swedish banking crisis
1992	Japanese banking crisis
1992	ECU bond market collapse
1993	UK exit from ERM
1994	Bond market reversal
1994	Mexican crisis
1997	Asian crisis
1998	Russia and LTCM

First, apart from the great depression, all of these episodes were concentrated in the post-1970 period. Second, Davis's discussion shows that the most common characteristic of these crises was 'debt accumulation'.²³ If Davis updated his paper, he would have to add most of the other South American as well as many African economies. Many of these crises were of course associated with real collapse of a violent nature. Moreover, throughout the modern dear-money era,

²³ Only the UK exit from the ERM saw debt accumulation absent, and clearly the argument here is to do with fixing at an inappropriate exchange rate rather than the consequence of an economic cycle.

certain countries have been held up as ‘model’ economies. The eventual failure of the German and Japanese economies ‘merely’ reflected the inevitable consequence of dear- but easy-money expansions. Stagnation, deflationary conditions and high unemployment equilibria have prevailed ever since. The South-East Asian ‘Tiger’ economies were the next prominent failures. There are already concerns that China is on a very dangerous path. Lastly, the US, and to some extent, the UK economies have been held up as models in recent years. But, again, these countries saw excessive expansions of investment that peaked with the stock market in the third quarter of 2001. From this point, finance was not so readily available and investment went into reverse. In the US there have been many job losses, particularly in the manufacturing industries. However, policymakers have been unwilling to let the debt burden unwind and have implemented possibly the most substantial relaxation of monetary and fiscal policy on record. (Annex 10.1 also shows a sectoral perspective on indebtedness for these two economies.) In the meantime, as in the 1930s, countries are seeking to gain short-term advantage by projectionist trade policy, domestic subsidies and what amount to aggressive devaluations in exchange rates. The stimulus from these operations have been obvious, yet on two occasions have proved short-lived, and there is concern that a third stimulus is faltering already. The measures have not addressed the underlying problem of the debt burden; indeed they have simply served to make it worse. As President Roosevelt said in his inaugural address on 4 March 1933, “Faced by a failure of credit they have proposed only the lending of more money”. In this way, the much vaunted policy of inflation targeting is now simply permitting a huge extension of credit to households ‘secured’ on rising house prices.

After twenty years of so-called ‘liberalisation’ or ‘globalisation’, states have not shrunk to any significant extent; indeed, at present, growth and employment are increasingly returning to being state-managed concerns. The financial excesses are now reflected in bond markets and the phenomenal expansion of hedge fund operations as well as house prices. At the same time many concede – or cannot avoid acknowledging – a ‘risk’ that the situation is unlikely to be sustainable:

Too much debt, geopolitical risk and several bubbles have created a very unstable environment which can turn any minute. More than any point in the past 20 or 30 years, there's a potential for a reversal ... We have become a levered global economy, specifically in Japan and the US. With all this consumer debt, business debt, government debt, smaller movements in interest rates have a magnified effect ... a small movement can tip the boat ... ²⁴

Such analyses go only as far as recognising symptoms of the economic malaise; none see the cause of the situation as dear money. According to this interpretation of Keynes, in attempting to sustain the situation, policymakers are seeking to deny the long-run equilibrium of the economy. Classical economists should therefore doubt the long-term feasibility of such a course of action.

²⁴ "Bill Goss, the chief investment officer of Pimco, the world's biggest bond fund manager" (*FT*, 17 June 2004).

Appendix 10.1

UK and US Debt

In his 'The Debt Deflation Theory of Great Depressions', Fisher (1933) produced an estimate of the level of debt in the US economy at the start of the great depression. The present level of UK and US debt can be calculated using national accounts balance sheets and flow of funds accounts. UK figures are based on summing 'total debt liabilities' for the private non-financial corporations, central and local government, and household sectors. (*UK Economic Accounts* tables A57, A62, A63 and A64, with ONS database codes, NIJT, NJIZ, NNPP, NLBB-NLBU; the readily available and consistent data only extends to 1987.) US figures are based on summing 'debt outstanding' for the federal government, households, businesses and state and local government. (*Flow of Funds Accounts of the United States*, with figures taken from table D3.) Figures are then presented as a share of (current price) gross domestic product.

In 2003 total US and UK debt were respectively 202 per cent and 260 per cent of GDP. Fisher's estimate of US internal debt at £200 billion in 1929, corresponds to 193 per cent of the present estimate of 1929 GDP.

Figure A10.1 shows the very substantial increase in the level of indebtedness in the US economy in the 'post-financial-liberalisation' era. Over the past decade, the growth in US debt has had a very distinct sectoral pattern. In the 'new economy' era of the late 1990s, business debt grew very sharply, but was curtailed as the stock exchange contracted. At this point there was an even sharper acceleration in the household sector accumulation of debt, as well as a return to increasing indebtedness for the government sector.

Figure A10.1: US debt as a share of GDP (%)

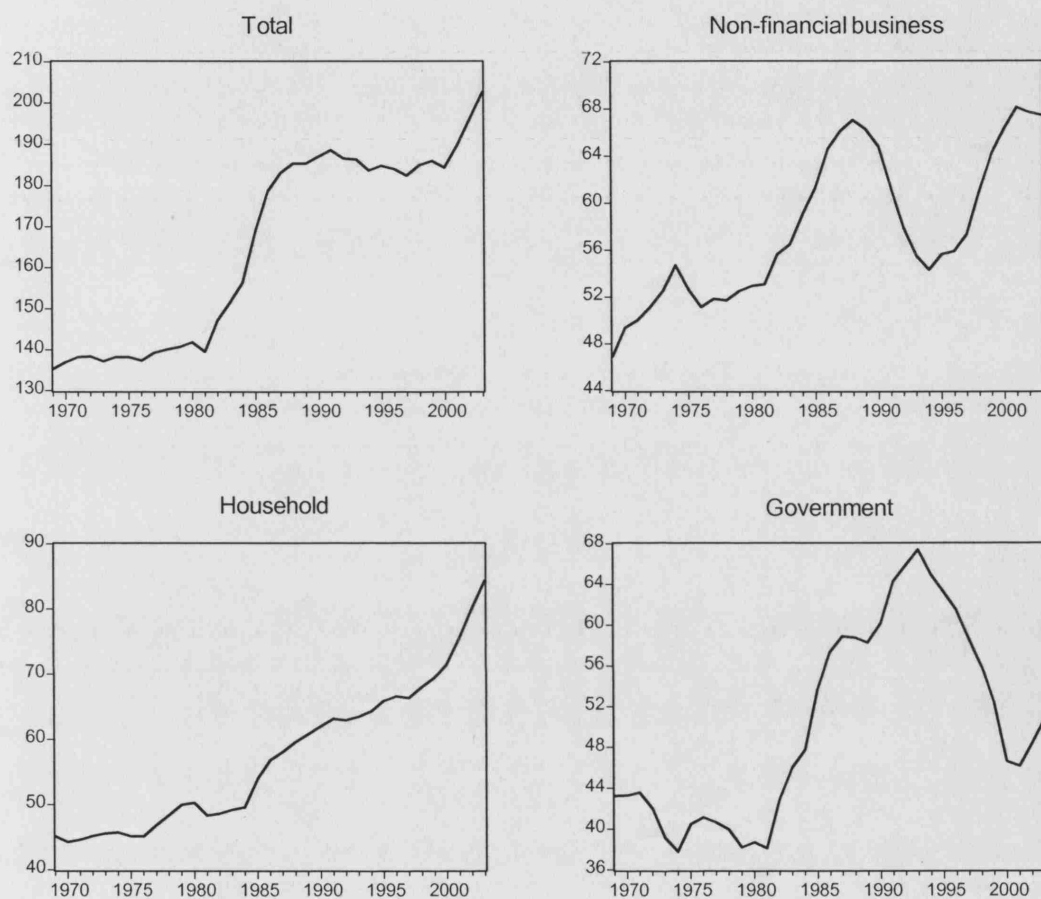
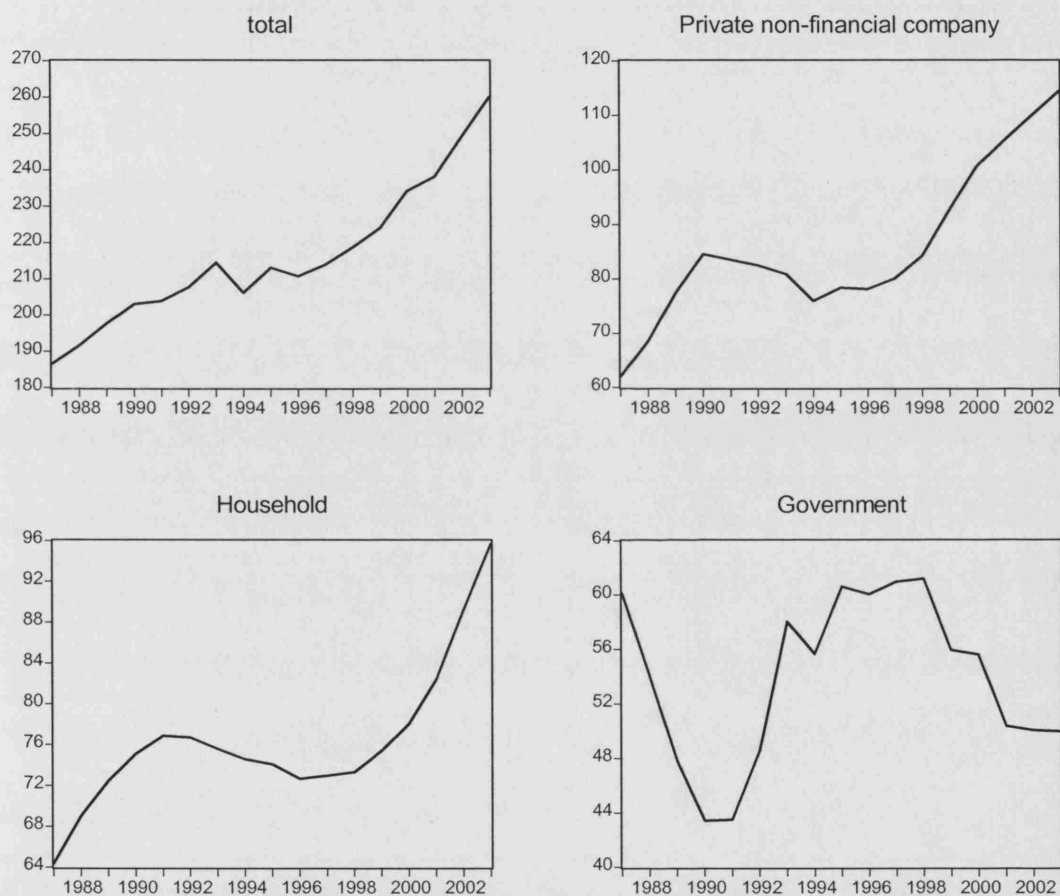


Figure A10.2 (over a shorter time-span) shows UK corporate debt accumulation also accelerated sharply over the new economy period, but has not been arrested (the pace has slowed a little). The household sector has accumulated debt at a rapid pace over the same period (with an acceleration in pace as the pace of corporate sector accumulation slowed).

Figure A10.2: UK debt as a share of GDP (%)



Conclusion

The central propositions of this thesis are that:

1. The monetary authorities have control of the rate of interest.
2. A low rate of interest is both cause of and necessary to prosperity and stability.

My claim is not only the validity of these propositions, but also that they were the essential conclusions of Keynes's economics. Properly understood, Keynes's economics advises that governments should take a degree of control over the monetary system in order to aim interest rate policy at cheap money. His development of international financial, debt management and monetary policies were not side issues, but the core practical mechanisms following from his theoretical conclusions.

Keynes's interest in fiscal policy was secondary. He endorsed its relevance in recession; but his primary concern was preventing recession. 'Keynesian' economics, on the other hand, was 'depression economics' – concerned only with the former course of action. For depression economics, monetary policy was powerless and therefore of no interest. The 'Keynesian' conclusion that monetary policy is powerless in recession and Keynes's conclusion that monetary policy could prevent recession may not be contradictory, but as guides to practical macroeconomic policy are wholly different conclusions. It is surely undeniable that if two theories come to different conclusions then they are different theories. In this way my central claim also provides decisive grounds for the total dismissal of the 'Keynesian' model.

But this has, of course, been anticipated by the post-Keynesian economists. They have rightly identified the central theoretical inconsistencies between the 'Keynesian' model and Keynes's model as the inadequate treatment of money and uncertainty. Here, with a recognition of the primacy of monetary policy as the core conclusion of Keynes's economics, a fuller theoretical and historical exposition of Keynes's economics is permitted.

I have presented a historical analysis of Keynes's theory and policy as a coherent whole ultimately pre-occupied by this monetary goal. In the case of the theoretical discussion, I have developed a number of technical points that I believe serve to clarify and bolster Keynes's underlying model. First, I have sought a fuller short-period/long-period framework within which both the *General Theory* and its predecessors can be interpreted. Second, I emphasised the importance of 'bills' to the theories of money as a means of exchange and money as a store of value. Third, I have offered a development of Keynes's theory in identifying debt as the essential transmission mechanism of the economic cycle. The discussion also argues that Keynes's 'discovery' of the saving-investment identity was of paramount importance to his 'discovery' of the *General Theory*. In this way, I have offered an alternative characterisation of the transition between the *Treatise* and the *GTOEIM*.

Given the radical departure of this portrayal of Keynes's theory from the 'Keynesian' model, I have sought too to explain how this came about. My argument is that the puzzle can be explained by recognising the 'Keynesian' model as a different and rival theory, originating, not with Keynes, but with Hawtrey and Robertson. Hicks's *IS-LM* was merely an algebraic representation of this model. While the economics profession dismissed the *General Theory* straight away, they wholly embraced what Robertson and Hicks presented as their 'revision' or 'modification' of the classical economics. Contrary to popular history, there was no hard-fought struggle to be won only after the war; acceptance of the 'Keynesian' model was instantaneous.

The same was true of 'Keynesian' policy. In the 1930s, the 'Establishment' themselves embraced the failure of *laissez-faire* as endemic to Capitalist systems

and advocated deeply anti-market measures as a solution. Again there was no struggle; these arguments were commonplace well before the publication of the *GTOEIM*. Nor was there any debate with Keynes. Those that advocated, in the words of Macmillan, ‘economic nationalism’, presented their arguments as the only possible alternative to *laissez-faire*. They did not seek to explain why they dismissed monetary reform.

The attribution of this *rival* policy and theoretical agenda to Keynes himself was a deception. In identifying this deception, academia, and indeed society itself, are revealed as subject to dominant forces of a profoundly undemocratic nature. Ultimately I argue that ‘Keynesianism’ was the Establishment’s compromise in the wake of the plainly apparent failure of *laissez-faire* and a policy agenda of monetary reform that was wholly unacceptable. The twentieth century can only be understood if these distinct agendas are recognised. In Britain, only the Labour Party was not party to the compromise. Between 1945 and 1950, the social and economic progress under the first majority Labour government in British history gave a glimpse of what monetary reform might achieve. But the rest of the golden age was founded on compromise. With the liberalisation of finance that began at the start of the 1970s, even the compromise was swept aside and policy returned to the blind forces of *laissez-faire*. The consequences have been exactly as the *General Theory* predicts. High interest rates have led to extreme conditions of low but volatile aggregate demand, high unemployment and severe financial and social instability. So far the most severe conditions have been concentrated on the ‘developing’ world. But, as I write, in the wake of a failure of private enterprise, the rich countries have again turned to the economic nationalist policies denied or impossible to implement in the ‘developing’ world.

Only Keynes’s theory – never refuted by genuinely impartial analysis – offers the ability to understand and fully and justly address the breakdown of the global economy. The solution, as it was in the 1930s, is large-scale reform of national and international financial systems. Such an approach may seem implausible given the immense scale of finance; but finance has only grown to such extents because the *choice* was taken to re-position the world economy as servant to these interests. Finally, while the rewards to wealth have been staggering, the

theory here suggests that the economic forces set in motion by financial liberalisation will eventually turn on their master. I find myself hoping for that event – there seems to be no possibility of any fuller awakening to the economic problem of the world without it.

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