

Essays in Keynesian Persuasion

Maria Cristina Marcuzzo

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AN: 2134005 ; Maria Cristina Marcuzzo, Editor.; Essays
in Keynesian Persuasion

Account: ns335141

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By

Maria Cristina Marcuzzo

Cambridge
Scholars
Publishing



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This book first published 2019

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

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ISBN (10): 1-5275-3255-0

ISBN (13): 978-1-5275-3255-7

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I am grateful to Palgrave Macmillan, Taylor & Francis, Springer Verlag, Cambridge University Press, Oxford University Press, Pickering & Chatto, Edward Elgar, for the permission to republish these essays.

The articles and book chapters are reproduced without alterations except for minor corrections.

ABBREVIATIONS

CWK	<i>The Collected Writing of J.M. Keynes</i> , followed by volume number in Roman numerals
JMK or KP	J.M. Keynes Papers
RFK	R.F. Kahn Papers
JVR	J.V. Robinson Papers
EAGR	E.A.G. Robinson Papers
NK	N. Kaldor Papers
BEV	W. Beveridge Papers

References to the archival documents of the authors examined in the text are given following the classification number of their respective catalogues.

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ACKNOWLEDGEMENTS

I have presented these papers in Conferences and Workshop in various countries over the years and benefited greatly from comments by discussants and attendants. I feel I owe much to all of them, and I would like to thank them here profusely.

I also have a debt of gratitude to my co-authors, Carlo Cristiano, Luca Fantacci, Annalisa Rosselli and Eleonora Sanfilippo with whom I have collaborated over many years to our, I believe, mutual benefit and pleasure.

I wish to thank my English language editor, Graham Sells, on whom I always confidently rely for taking the burden of mistakes off my shoulders and Iolanda Sanfilippo, for her extremely careful editing and editorial assistance in preparing this collection.

Rome, December 2018

INTRODUCTION

This volume brings together papers published between 2002 and 2018 and can be read as a sequel to my *Fighting Market Failure* (Marcuzzo 2012). Unlike the previous collection, this volume focuses almost entirely on Keynes and Keynesian thinking; hence the choice of the title, actually borrowed from Keynes (*Essays in Persuasion* in CWK IX).

The word “persuasion” is chosen to convey to the reader not only my own allegiance to Keynes’s approach to economics, but also the hope that these essays may be “persuasive” in making Keynes’s message better understood and therefore more likely to be accepted.

The first chapters are all related to the *General Theory*; a book raising questions about the nature of its assumptions and conclusions and leading to different interpretations, thus giving rise to controversies that have yet to be settled. Three chapters concern the origin of the book and the development of Keynes’s thinking on the way towards it. What emerges from reviewing Keynes’s biographers’ views in Chapter 1 is that Keynes’s main purpose in writing the book was to persuade his fellow economists to abandon previously held views and embrace an approach which could open the way to fighting unemployment. Chapters 2 and 3 show that writing the *General Theory* took Keynes on a long journey from the *Treatise on Money* and his own previously held views, such as his adherence to the Quantity Theory of Money.

Persuasion was essential to Keynes’s conception of economics as a method of moulding ideas and opinions in an exchange with others, as he explained in a celebrated passage: “It is astonishing what foolish things one can temporarily believe *if one thinks too long alone*, particularly in economics (along with the other moral sciences), where it is often impossible to bring one’s ideas to a conclusive test either formal or experimental” (CWK VII: vii–viii; emphasis added).

In fact, in the often-quoted letter to G.B. Shaw, we find confirming evidence: “When my new theory has been duly assimilated and mixed with politics and feeling and passions [...] there will be a great change” (CWK XIII: 492–93). Far from asserting the scientific superiority of his own theory, he entrusted “politics, feelings and passions” to get the message through.

Politics, feelings and passions varied among his readership and Keynes's style of working by forming and refining his argument *vis-à-vis* his interlocutors shows an ample range of cases revealing scant success in getting the message of *The General Theory* through (Marcuzzo 2018). Chapter 4 focuses precisely on the central role that persuasion – in the two-way sense of persuading and of being persuaded – played in Keynes's work, and in particular examines the dramatic circumstances in the 1920s and in the 1940s, in which he had to call upon all his powers of persuasion to urge his case, as in *The Economic Consequence of the Peace* or in the Anglo-American negotiations, unfortunately to no avail.

The second section includes chapters which are the outcome of a long and collective research work on the correspondence among several Cambridge economists (Marcuzzo and Rosselli 2005); those reproduced here involve Keynes and his closest interlocutors and followers, Kahn, Joan Robinson and Kaldor. The published and unpublished letters are also listed here with the hope that others might exploit them in future research.

As mentioned elsewhere (Marcuzzo 2012), in Cambridge economics was not talked about, it was written about – also due to the lack of telephones (at least until World War II), which were not installed in the college rooms or flatly refused by the older generation. Keynes in particular disliked the “inconsiderate” use of the telephone, which could interrupt him while at work (Keynes XVIII: 100–101). Moreover, written communication was most efficient, three deliveries daily being guaranteed by the public postal service while the colleges also had their own internal post.

Keynes formed his ideas in the process of submitting them to others, and we have ample evidence of his style of work and reasoning intertwined in close personal relations. If he was to be convinced himself and to persuade another of an argument, Keynes needed to engage in exchanges that had a strong emotional side (affection, trust, respect), affording a “meeting of minds” (one of Keynes's favourite expressions) that for him was conducive to fruitful interaction.

Chapter 5 is a study of Keynes's closest interlocutors, Kahn, Joan Robinson and Kaldor, digging into the treasure trove of their Archives. Particular attention is paid to their unpublished writings, which, together with the correspondence are a mine of information helping to put their work and personal lives in context.

Richard Kahn, Keynes's favourite pupil, contributed more significantly than anyone else in the circle around Keynes to the Keynesian revolution. Chapter 6 amply documents that relations between Keynes and Kahn were strong, continuous, and fertile, with an apparently paradoxical inversion of

roles: it was the pupil who intervened to correct, tidy up, and sound out the master's rationale. There are aspects independently worked on by Kahn that Keynes subsequently incorporated, adapting them to his aims and *forma mentis*, which eventually became part of *The General Theory*, readjusting the framework upon which his *Treatise on Money* had rested. Kahn was a close collaborator of Keynes in the running of King's college finance, in following up on Keynes's reforms proposals and finally as his literary executor, taking charge of Keynes's intellectual legacy.

Chapter 7 follows Joan Robinson's acquaintance with Keynes, which began slowly, but developed into a warm friendship and a close intellectual partnership. She was a member of the "Circus", the informal discussion group that met from late 1930 to the Spring of 1931 for the purpose of pursuing the arguments of the *Treatise on Money* to their full implications. Given her involvement with Keynes's work, she was asked to comment on the proofs of the *General Theory*. Keynes was also supportive of her academic career and once stepped in to prevent others from harming it. Their relationship also had its difficult moments when she was defending Kalecki's work against his criticism, but the correspondence between them from the mid-1930s onwards shows that he trusted her judgment and was appreciative of her work. After Keynes's death, she became the staunchest supporter of the Keynesian Revolution, in particular against those she believed to be its "bastard progeny".

The third section concerns what has been referred to in the literature as the "return to Keynes" in the aftermath of the 2007–8 financial crisis. After over twenty-five years of ostracism, spent extolling the efficiency of free markets and running econometric tests to prove that economic policies are either ineffectual or even irrelevant, there has been an upsurge in the wave of references to Keynes in the media. Although this has not been reflected on the academic scene, still dominated by the macroeconomics of anti- or pre-Keynesian inspiration that took hold between the 1970s and 1980s, the return to Keynes is certainly welcome. This is the subject of Chapter 10.

While today's world is very different from that of twenty – let alone eighty – years ago, there are notable similarities between the Great Depression of the 1930s – Keynes's world – and our contemporary crisis. A corresponding similarity is to be seen between the economic theory prevailing before Keynes's times and that of our own times. There are at least two reasons why the ideas put forward by Keynes in the 1930s are still relevant to the world of today. The first, and perhaps the most important, is the global recession which has dragged on since 2008–9 and even now is showing only a few timid signs of letting up, forcefully

reminding us of the events which prompted Keynes to search out solutions to mass unemployment and economic disruption. The second is the still pervasive free-market ideology that inspired the policies and behaviour that played no small part in fuelling the crisis. The traditional remedies to cure the 1930s recession – reliance on market mechanisms and balancing the budget – have been resurrected in the present times, and while criticism of the austerity policies is gaining momentum Keynes's arguments still fail to be widely and fully accepted. (Marcuzzo 2017).

The other chapters in this section look at particular instances of the situation described above. Chapter 8 takes the points made by Keynes in his *Economic Consequences of the Peace* as a springboard to analyse the event which precipitated the financial crisis, namely the failure to save Lehman Brothers. Chapter 9 and Chapter 11 address two related topics, which are central to Keynesian economics: the welfare state and the multiplier. Chapter 9 traces the origin of Keynes's involvement in Beveridge's bold reform programme and explores the nature of their relationship, after an initial difficulty on Beveridge's part in coming to grips with the message of the *General Theory*. Chapter 11 tackles the issue of what has happened to the estimates of the multiplier over the years and argues that different types of *models* will deliver fiscal multipliers of almost any magnitude, depending on the underlying parameter values and assumptions regarding monetary policy reaction functions and so forth. Particular attention focuses on the case when the multiplier "does not multiply" i.e. when consumption is modelled on individual maximising behaviour, over an infinite time horizon and with perfect foresight, relegating real income as a determinant of aggregate consumption – which was Keynes's main concern – to a negligible role.

The final section reviews Keynes's multifarious activities as institutional and personal investor, speculator on his own account in stocks, commodities and derivatives and innovator in proposing a reform of the commodity markets.

Keynes was a trader in the commodity markets from 1921 to 1939, when foreign trading was suspended because of the war; from then on he regarded these markets from the point of view of a regulator, putting forward a Buffer Stocks scheme to curb the volatility of commodity prices; this would represent part of his more general proposals to stabilize the international monetary system and foster general growth and prosperity.

Chapter 12 traces the evolution of his ideas on this matter, developed on the basis of his intimate knowledge of primary commodity markets and his practice as an active player on them. It presents some findings on his

speculative activity in the futures market in particular, looking into his trading behaviour in wheat in the mid-1930s. Notwithstanding some limited success, several losses and the difficulty of getting the timing right in buying and selling might have led Keynes to believe that the futures markets were not sufficient to contain price oscillations, with sudden and dire consequences for consumers and producers alike. Chapter 13 examines Keynes's proposals, the so-called Commodity Control, of which nine different versions were drafted between January 1942 and February 1943, and comparing it with the modifications introduced by Kahn in the early 1950s. Chapter 14 focus more in detail on Keynes's speculative activity in metals, through the means of options, the most common derivatives in his times.

Chapter 15 concludes with an overview of Keynes's investment philosophy; it is argued there that as an investor and speculator Keynes was an exceptionally gifted trader, not because of the gains he made in the Stock Exchange, which were not as substantial as commonly believed, but by virtue of his profound grasp of the fundamentals underlying commodities, shares and currencies. He showed great ability in gauging the direction of prices, although he did not always get the timing right. He never ceased to gather information on the underlying forces driving prices, and remained first and foremost an economist who based his trading decisions on his professional knowledge. While he became increasingly concerned with the role of market sentiment, conventions and herd behaviour, and in his mature thinking granted that the success of the speculator might rest on the ability to interpret market sentiment, this was never the guiding principle for Keynes's own behaviour as an investor. He trusted, rather, informed opinion on relevant data and, above all, his own individual judgment. He never lost sight of the complexity of the factors behind the surface of price changes; while he progressively lost confidence in the ability to predict their course in the short run, he remained confident that study of the fundamentals of the economy and of what underlies the individual asset would provide a reasonable basis for rational and, in the long run at least, successful choice (Marcuzzo 2018).

This collection is the outcome of more than 30 years of work on Keynes and Keynesian economics, a process that I have thoroughly enjoyed. I would dearly like to transmit the same pleasure to my readers, and if I do not succeed it will be my fault, not Keynes's.

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PART I

RE-APPRAISING THE *GENERAL THEORY*

CHAPTER ONE

THE *GENERAL THEORY* IN KEYNES'S BIOGRAPHIES

MARIA CRISTINA MARCUZZO

It may both be true that many things said by Keynes [in the *General Theory*] had been said, or could have been said, in the old terminology, and that his scheme has tempted its users into certain errors, and yet remain also true that, on the whole and on balance, his scheme is far superior.

(Harrod 1951: 465)

I must remind the reader that the book is probably the least clear of Keynes's contribution to economics.

(Moggridge 1992: 557)

There are many different ways of telling the story of the *General Theory of Employment, Interest and Money*, and many different stories to be told about it.

(Skidelsky 1992: 537)

1. Premise

It is perhaps fitting to mark the 70th anniversary of the *General Theory (GT)*¹ with an assessment of what we have learned about this work from

¹ In 2006 a number of events were held to celebrate the anniversary of the *General Theory* and commemorate Keynes's death ten years later; this burst of activity took a heavy toll on scholars who had perhaps too readily accepted the invitation to take part in them, untroubled by the danger of repetitions and overlapping in what they had to say. This was certainly my case, as I later discovered that by taking part in these celebrations I had committed myself to writing three chapters on Keynes in a very short period of time. I have tried my best to make this chapter a complement to rather than a substitute for the other two companion pieces (Marcuzzo 2006; 2008).

the vast research undertaken by three biographers of Keynes whose researches on his papers and correspondence mark them out among scholars for their extraordinary scope and thoroughness. I will compare the analysis of the *GT* in Keynes's three major biographies (Harrod 1951; Moggridge 1992; Skidelsky 1992) in order to assess the views presented there on the genesis of the book, the development of its main ideas and the various "versions" which have been produced ever since. Once set in the context of Keynes's life, does the book prove more intelligible, and if so, in what respects? Can we detect different interpretations of its meaning and significance? On posing these questions and comparing these three biographers' approaches to the subject matter, one should bear in mind that Harrod holds a peculiar position among the three. On the one hand he knew Keynes and participated in the process which led to the *General Theory* (he was also one of the people Keynes entrusted the proofreading to), while on the other hand he could not have full command of the Keynes's papers, most of which were still uncatalogued and unpublished when he set about writing the biography. Moggridge, of course, enjoyed a very different position since, in his capacity as editor of the *Collected Writings* of J.M. Keynes (CWK), he was responsible for much of dating and ordering of the relevant papers, letters and manuscripts. Skidelsky, on the other hand, while claiming that his purpose was to "rescue Keynes from the economists", dedicated considerably more pages to the *GT* than the other two biographers,² although largely taken up with the reactions to the book and the criticism it came in for.

In comparing and assessing the biographers' narratives, I divide my account into three sections thus: 2. Origin and purpose; 3. Development and influences and 4. Interpretations and controversies. In the final section I draw some conclusions.

2. Origin and Purpose

All three biographers agree that the origin of the *GT* is to be found in Keynes's dissatisfaction with his *Treatise on Money*, coupled with an urge to find remedies to the worldwide high level of unemployment. However, they stress different aspects in the scenario against which the book is set and should be placed.

Harrod draws attention to the *readership* the book targeted: "His aim [...] was to convert his professional colleagues. He judged that a direct

² In Moggridge the *GT* is covered in two chapters amounting to 53 pages, while the two chapters devoted to it in Skidelsky come to 87 pages.

appeal to the people would be in vain, unless it could be reinforced by the majority of economists speaking with one voice” (Harrod 1951: 461). In this respect, the *GT* is presented as a work of persuasion, like many others by Keynes, but with a particular public in mind. Harrod’s characterization is indeed borne out by Keynes’s warnings in the final pages of the book against being “slaves of some defunct economist” or the danger of “gradual encroachment of ideas” (CWK VII: 383).

Who were the “professional colleagues” he was intent on converting? Certainly D.H. Robertson and F.A. Hayek, who – if judged against their review of the *Treatise on Money* – had proved to him that they “had not in the least understood what he had tried to say” (Harrod 1951: 435), but also A.C. Pigou, L. Robbins and H. Henderson, the professional economists, the representatives of “sound principles” (Mini 1996: 331) with whom Keynes was in constant contact.

According to Harrod the support Keynes was receiving from his closest (and younger) colleagues, R.F. Kahn and J. Robinson, sharpened the contrast with the economists who failed to see what he was getting at, despite his efforts to impress his meaning on them. Perhaps after all they were hardly to be blamed, one could argue, since he was breaking new ground and “raising a dust” (CWK XIII: 548). We know that Harrod, too, from the very outset, when the writing of the *GT* was still being written, was very critical of Keynes’s insistence on emphasizing differences between his approach and what he labelled “classical thought”. In his biography he volunteers an explanation of Keynes’s irreverence towards the established view, as a psychological reaction “to the frustrations he had felt, and was still feeling, as the result of the persistent tendency to ignore what was novel in his contribution” (Harrod 1951: 451).

By “classics” Keynes meant the tradition stemming from Marshall, including that inheritance from British Political Economy which had been filtered into it; this tradition was embodied in the work and teaching of Pigou and Robertson and most of Keynes’s colleagues at his Faculty in Cambridge. Keynes was exposed to the views of his fellow economists also in his capacity as editor of the *Economic Journal*, Secretary of the Royal Economic Society and in his multifarious academic and non-academic endeavours. Most aptly it has been said that

Keynes was an educator. His classroom was England and the world, and his tools were the newspaper article, the pamphlet, the letter to *The Times*, the radiobroadcast, the committee testimony and, occasionally, the technical books and journal articles addressed to economists. In pursuit of this mission, he gained knowledge by participating in economic

committees, by questioning those in authority, by partying and conferring with statesmen, bankers, politicians and those "in the know".

(Mini 1995: 49)

He was well acquainted with the ethos of the profession and in disagreement with most of it, especially in the late 1920s and early 1930 when important issues, such as rationalization of the cotton industry, trade and exchange rate policy and remedies for unemployment were being debated. His censured the majority of the economic profession for their inability to change habits of mind which, when added to the "habits and instincts of the ordinary man, bred into him for countless generations" (CWK IX: 327), made engagement in experiments conducive to practical results even more difficult.

Economists did not enjoy top ranking in Keynes's scale of values and appreciation,³ but to persuade them he had to meet them on their own ground. The sense of frustration Keynes was experiencing is borne out in many instances during the drafting of the *GT* and in the aftermath, offering some support for Harrod's interpretation. A famous letter to Lydia, in October 1933, gives us a glimpse into Keynes's state of chagrin: "Are all the economists mad except Alexander [R.F. Kahn] and me? It seems to me so, yet it can't be true" (quoted in Moggridge 1992: 566).

For his part, Skidelsky insists on another of Keynes's main concerns, namely the threat facing civilization, i.e. freedom and democracy, with the rise of the two totalitarianisms of the 1930s: "The *General Theory* was projected against the background not just of the world depression, but of its political and social repercussions: specifically, the spread of communism and fascism" (Skidelsky 1992: 440). There is no doubt that in the 1930s Keynes was shocked at the discovery that many of his friends were turning to Marx, and that on many occasions he voiced his aversion to Marx and his economic theory. His opposition to fascism is equally beyond question; the Preface to the German edition of the *GT* cannot be interpreted as implicit support of the Nazi economic experiment (Scheffold 1980). Still, it is difficult to assess how strongly he felt the seriousness of the threat and to what extent he was endeavouring to get through to a readership that was politically committed to a totalitarian creed.

³ See Keynes's often quoted remark: "The study of economics does not seem to require any specialised gifts of an unusually high order. Is it not, intellectually regarded, a very easy subject compared with the higher branch of philosophy and pure science? Yes good, or even competent, economists are the rarest of birds. An easy subject at which very few excel" (CWK X: 173).

Certainly, in the book he praised the advantages and virtues of capitalist individualism:

The authoritarian state system of today seem to solve the problem of unemployment at the expense of efficiency and of freedom [...] it may be possible by a right analysis of the problem to cure the disease whilst preserving efficiency and freedom.

(CWK VII: 381)

However there are passages in which individualism is portrayed as the culprit of many failures in market economies,⁴ so perhaps it was in the realm of economic, moral and civil liberties, that Keynes was pursuing his agenda, in many respects at variance with traditional liberal stances (see Dostaler 1998; Vercelli 2010). The threat was not only the dangers of advancing totalitarianisms, but also those deriving from excessive much reliance on the market system. While Keynesian policies are wrongly characterized as synonymous with government intervention, his cure of “socializing investment” to sustain aggregate demand can rightly be adduced as evidence of his mistrust of market mechanisms (Bateman 2006). How much antiliberal *politics* and how much anti *laissez-faire economics* is behind the *GT* is perhaps still an open question.

Moggridge, on the other hand, draws attention to Keynes’s deep dislike of those premises in economics which are found out to be false or ill-conceived: “[his] emphasis on assumptions or premises also provides a large part of the explanation of why he abandoned his *Treatise on Money* so quickly” (Moggridge 1992: 555). Indeed many instances can be found in the *GT* of Keynes’s argumentative logic against “the classical theory” based on the accusation of holding “tacit assumptions [that] are seldom or never satisfied” (CWK VII: 378) such as the “illicit assumption” that “the wage bargain determines the real wage” (ibid.: 13) or their “fallaciously supposing” that an act of individual saving leads to an act of investment (ibid.: 21). This aversion to false premises applied to his own theory as well, and this may explain why Keynes was at times found to be inconsistent with his previously held views.

What, then, was so wrong with the assumptions of the *Treatise* that Keynes, within a year of its publication, felt he had to abandon them? I have argued elsewhere (Marcuzzo 2002a) that basically he had misgivings about the Fundamental Equations, i.e. the assumed independence of the

⁴ See for instance what he wrote in 1933: “The decadent international but individualistic capitalism, in the hands of which we found ourselves after the War, is not a success. It is not intelligent, it is not beautiful, it is not just, it is not virtuous – and it doesn’t deliver the goods” (CWK XXI: 239).

price level of consumption goods from that of investment goods, which came under fire both from his opponents (Pigou and Robertson) and from his closer associates (Kahn and Sraffa). However, astonishing as his readiness was to accept the need to revise his assumptions (and eventually to discard the Fundamental Equations), in the end he could not resist presenting his new book as a “natural evolution” in his line of thought (CWK VII: xxii).

He laboured to make his former approach appear compatible with the latter and was always careful to indicate *where* exactly his new argument departed from the old. First, there was the change in the definition of income (ibid.: 61); second, there was a new mechanism for output adjustment (ibid.: 77); and third there was determination of the equilibrium level of output at less than full employment (ibid.: 77–8). Thus, reinterpreting his former approach based on the Fundamental Equations in the light of the latter, based on Effective Demand, Keynes claimed to have established compatibility between his two books (see Marcuzzo 2002a). Moggridge argues that “one should accept Keynes’s retrospective account of how he came to his conclusions” (Moggridge 1992: 559). However, I feel that in the case of these two books he was stretching the continuity of his approach a bit too far.

3. Development and Influences

Thanks to his editorship of Keynes’s *Collected Writings*, Moggridge was better placed to provide the most detailed account of the development of Keynes’s ideas towards the *GT* and trace out the stages through which concepts and argument took various forms and final shape. His narrative is extremely accurate and well grounded on evidence coming from drafts, correspondence, table of contents and lecture notes, only a part of which is published in vols. XIII and XXIX of the *Collected Writings*. There are alternative reconstructions – as found in the literature (see Patinkin 1973, 1996) – but Moggridge’s is to be considered the benchmark chronology.

The five years spanning from the publication of the *Treatise* to that of the *General Theory*, can be divided into three time-legs. The first dates from comments and criticism on the *Treatise* (autumn 1930) to the early material for the new book and lectures (spring 1932). The second spans from the Easter Term 1932 lectures, which were attended by members of the “Circus”, to the summer 1933, when the writing of the new book was well under way. The final stage runs from the 1933 Michaelmas Term lectures and the contemporary fragments of versions of the *GT*, when the

principle of effective demand was clearly expounded, to the final touches to the proofs in December 1935.

Disagreement among scholars about the development of Keynes's ideas towards the *GT*, can be grouped into two headings, namely the list of steps leading to it and the evidence agreed upon to support it. Perhaps the issue which has attracted more attention is *when* Keynes arrived at the formulation of the principle of effective demand. Most commentators (Dimand 1988: 167; Moggridge 1992: 562; Patinkin 1993: 656) agree that by Michaelmas term 1933 the conception of effective demand had been accomplished; more disputed is whether the supporting argument, namely that a change in investment causes a change in saving, was present even in the 1932 drafts. For instance, Moggridge's dating of these fragments was questioned by Patinkin (1975; 1993) on the grounds that description of the equilibrating role of changes in output does not appear in the November 1932 lecture notes (Rymes 1989). I have argued elsewhere (Marcuzzo 2002b) that I have not found enough evidence to support Patinkin's claim.

Skidelsky's account follows the same line as Moggridge's, but he makes an important methodological point in passing:

[the] scholarly obsession with timetabling the *flow* of intellectual invention [...] also reflects an agenda which is not historiographical or methodological. Involved are the linked questions of the relative value of *Treatise* and the *General Theory* and the whole corpus of Keynes's writings; the relationship between Keynes's work and that of the other monetary economists of his day; and what the "main point" of the *General Theory* was.

(Skidelsky 1992: 444–5)

In fact, when it comes to tracing out the influence of his fellow economists in the process which led Keynes toward the *GT*, nuances in the accepted chronology become marked historiographical differences. Skidelsky, like Harrod,⁵ plays down the importance of the Circus⁶ and gives more credit to Kahn and Hawtrey. Moggridge, on the contrary, takes the view that:

⁵ "[I]n the writing of the book itself, his main pillar of support was Mr. Richard Kahn" (Harrod 1951: 451).

⁶ "Despite much 'pooled memory' to the contrary, the Circus seems to have played a relatively minor part in the development of the *General Theory* [...] the most important effect of the Circus discussion was to reinforce the impetus Hawtrey gave Keynes to working out a short-period theory of output [...] much more important than Circus's collective contribution to Keynes's progress was Kahn's personal contribution" (Skidelsky 1992: 447).

Kahn certainly deserves Keynes's glowing acknowledgement in the Preface to the *General Theory*. Yet the surviving materials show that Keynes was in control. He chose the destination and the main route. His colleagues and collaborators tried to keep him from unnecessary logs, and to improve his sketch map for his successors – but not always successfully. (Moggridge 1992: 569–70)

Harrod's narrative is intertwined with autobiographic threads, since he was directly involved in the process of commenting on the *GT*, from the early stages through the proofs. "My main endeavour" – he claims – "was to mitigate his attack on the 'classical' school [...] [in particular] in regard to his allegation that the traditional theory of interest did not make sense" (Harrod 1951: 453). In the biography he defends the point which he had made at the time, namely that Keynes was "in some confusion about what the classical position really was" and that he claimed "for his definition of the marginal efficiency of capital more originality than can be accorded to it" (*ibid.*).

There are two questions here. The first is how accurately the biographer – who happens to be contemporary with his subject – is able to recount the process of development of ideas at the time and to assess the nature of his own contribution; the second is whether his argument about Keynes' theory of interest rate stands up to criticism.⁷ On these two issues, the literature provides us with a good deal of evidence. Daniele Besomi has convincingly argued that Harrod's role as commentator upon the *GT* in the making, if judged against the extant correspondence, shows that "at several crucial stages in the evolution of Keynes's thought Harrod was unaware of the developments taking place" (Besomi 2005: 92). Moreover, the exchange they had between June and September 1935 on the proofs "bear witness to the incompatibility of their viewpoints" (*ibid.*: 98), both in terms of methodology and substantive issues.

On the question of the rate of interest, there is no agreement in the literature as to whether Keynes had entirely freed himself from the basic marginalist ideas about the decreasing ordering of investment projects because of diminishing returns and the inverse relationship between investment and interest rate.⁸ It seems to me that Harrod acknowledges

⁷ One reviewer of Harrod's biography acutely remarked that one has "to disentangle three things: (1) Harrod's account of Keynes' economics; Harrod's own recent economics; and Keynes account of Keynes's economics" (Wright 1952: 392).

⁸ Pasinetti (1977: 60) argues that the ordering of investment projects cannot be assimilated to the marginal reasoning of neoclassical vintage, being closer to the Ricardian principles of ordering of land on the basis of degree of fertility; on the

“the importance of expectations in this connection” (Harrod 1951: 453), but he misses Keynes’s point about the “conventional” nature of the interest rate which qualifies it as a monetary phenomenon, unlike the classical theory which anchors it to the productivity of capital.

Moggridge does not address this issue – simply noting that by 1933 Keynes “had the glimmerings of the marginal efficiency of capital, as distinguished from marginal productivity of capital” (Moggridge 1992: 561); Skidelsky devotes quite a few pages to the topic, concluding that “The fundamental unity between Keynes’s liquidity-preference theory of interest and the rest of his ideas in the *General Theory* lies at the instinctive, or visionary level” (Skidelsky 1992: 563). Thus, against conceptual difficulties, interpretation of the theory shifts towards interpretation of the man, which is not an uncommon outcome in biographies.

4. Interpretations and Controversies

The underlying ambition which I found common to Harrod, Moggridge and Skidelsky (and perhaps to any biographer) is to find a key to Keynes’s mind and understand how it worked. In doing so, they came to stress different qualities of his intellect and personality both in general and in the *GT* in particular.

Harrod’s point is Keynes’s *consistency*. “I detect” – he wrote – “a most remarkable consistency in the development of his theories and practical proposals, from his early studies in the Indian currency to the *General Theory*” (Harrod 1951: 467). Consistency here is seen as a feature of Keynes ever ready to change ideas, in the pursuit of truth, to open up new paths, to give himself up to new discoveries.⁹ Many words are spent defending Keynes from the charge of being inconsistent throughout his work and in his policy promoting. Moreover, Harrod seems to be interpreting consistency as continuity, thus embracing the thesis which lately has gained a lot of favour in the literature (see Davis 1994), when he states that “the careful student is able to trace a natural evolution of ideas

contrary, Bonifati and Vianello (1998: 103) argue that Keynes remains faithful to the marginalist tradition according to which as the rate of interest decreases more capital – intensive production processes are adopted as an effect of the “scarcity” principle.

⁹ “There is little doubt that he would not have rested content in the position that he had achieved in 1935 anymore than Ricardo, whose mind was also continually moving forward, would have rested content with the last edition of the *Principles*” (Harrod 1951: 473).

from his early writings to the great system set out in the *General Theory*". No clues, however, are given to the reader about the elements which could be brought in to confirm or disconfirm the "continuity" thesis.

Moggridge lays great emphasis on Keynes's *intuition* in general, and specifically on working out the *GT*: "in the development of particular ideas for the *General Theory* it is clear that he had intuitively grasped the essentials of many of them quite early" (Moggridge 1992: 552). Moggridge insists that for Keynes "intuition ran ahead of analysis", and that for him economics required "appeal to intuitions", not proofs as in mathematics, alluding here to the wider issue of the methodological differences in natural and moral sciences to which Keynes attached great importance.

In the same vein, but in a slightly different sense, Skidelsky points out to the *artistic* aspect of Keynes, in particular as far as the *GT* is concerned; he described it as a "work of art and imagination as well as economic logic [...] an invitation to thought rather than a machine for solving crises" (Skidelsky 1992: 538).

These differences in characterizing Keynes's intellect add to their shared belief that the driving force behind it was an urge to persuade and a deep involvement in policy-making.¹⁰ In a related chapter (Marcuzzo 2008), I examined the central role of persuasion in Keynes's work as a means to change the environment within which individuals operate – so that moral and rational motives become the spring of action of the collectivity as a whole – and to induce behaviour to conform to goals that were attainable only by moving beyond individualistic motivation or utilitarian calculation. As Samuel Brittan aptly noted, Keynes "never lost hope that morality and permeation of ideas could be relied upon to disseminate enlighten thinking after, at worst, a lag of generation" (Brittan 2006: 182).

There is no doubt that the *GT* is better portrayed as a study in *persuasion* rather than in *policy making*, offering a set of recipes or rules to be followed in all circumstances. Skidelsky warns against the dangers of "reading off Keynesian policy prescriptions from a single book" (Skidelsky 1992: 319) and in particular the misreading of the *GT* as a eulogy of fiscal policy. He argues, however, that notwithstanding Keynes's own resistance to "premature formalisation of his theory [...] the reduction of theory to model was inseparable from its triumph as a tool of policy" (ibid.: 548).

¹⁰ "Keynes was passionately concerned with policy; so were most of those who took up the *General Theory*" (Skidelsky 1992: 617).

Harrod's viewpoint on the role of models in economics was very far from Keynes's, as is borne out by the exchange they had on this matter (see Besomi 2005). He does not attempt to present the main propositions of the *GT* in model-like form and mentions only in passing that at the time he had "supplied a diagram purporting to reconcile the classical theory with [Keynes's] theory" (Harrod 1951: 453). In a footnote, however, he mentions his *Econometrica* article (Harrod 1937) said to be "a summary account of the doctrines of the *General Theory*, for consideration by professional economists" (Harrod 1951: 453).

Moggridge takes pains to present Keynes as not putting "great faith in the simple-minded application of ideas from particular models" (Moggridge 1992: 554), but does not commit himself to any "interpretation" of the *GT*, thereby coming in for criticism from some reviewers (see Dimand 1993; Blaug 1994). We have, however, other sources to evaluate his position. Unlike the case of Harrod, with whom Moggridge in very few cases disagrees over matters of facts and interpretation – apart from the trenchant line in a footnote referring to "Harrod's general attempt to make Keynes's views conform with it" (Moggridge 1992: 573n) – he took issue with the way in which Skidelsky dealt with many aspects of Keynes's life and work in general and the *GT* in particular (Moggridge 2002a; 2002b). The verdict is clear-cut: "Skidelsky's treatment of the General Theory is post-Keynesian" and shows "a lack of engagement with the literature on nineteenth-century economics" (Moggridge 2002a: 640, 642). Keynes – in Moggridge's view – was disposed to accept the formalisation of his theory "in terms of a simple three-equation, two identity model" as formulated on more or less similar lines by Hicks, Lange, Reddaway, Champenowne, Harrod, Meade and Lerner (Moggridge 2002a: 641). This assertion has him siding more with Harrod than with the Post-Keynesians (and Kahn and Joan Robinson for that matter) in not rescuing the *GT* from its subsequent developments.

Finally, Moggridge claims that "Skidelsky has been overly preoccupied" (Moggridge 2002a: 653) with Harrod's biography, implying perhaps that he was not preoccupied with his. In fact, there are not many "Moggridge" entries in the index to the three volumes by Skidelsky and I am not aware that Skidelsky responded to Moggridge's criticism of his trilogy. On the contrary, an entire section in the last chapter of the third volume by Skidelsky (2000) is devoted to Harrod's biography and how it was received at the time of its publication, with no comments, unfortunately, on Harrod's analysis of the *GT*.

5. Some Concluding Remarks

We have seen that there are many layers in the readings of the *GT* by Keynes's biographers, to which one could also add the various assessments their accounts were received in the literature. All three biographies prompted a great many reviews by professional economists and historians, who naturally had critical remarks to make on some aspects of them. Pollard (1994: 140–41) rightly points to the different evaluation of the *Treatise on Money vis-a-vis* the *GT* in Skidelsky and Moggridge; while the former maintains that Keynes' "classical achievement" is the 1930 book, the latter gives the highest marks to the 1936 book. Laidler (2002: 102) argues that "Skidelsky manages to place more emphasis on the heterodox element in Keynes' economic thought than the overall record perhaps justifies". Dimand (1993: 996) criticizes both Skidelsky and Moggridge for not making "proper use" of Rymes (1989) as "rich source of insights into the writings of the *General Theory*", and argues that in general Keynes's most important book is not given the full treatment it deserves in Moggridge's biography. Also Blaug (1994: 1210) observes that, surprisingly, Moggridge "declines to enter into a discussion of the what-Keynes-really-meant literature". Harcourt and Turnell (2005: 4937), on the other hand, with reference to Skidelsky, claim that "Readers with little or no prior knowledge of why the *General Theory* was so significant [...] will go away with a clear idea of its momentous importance and impact at the time it was written".

It seems to me that, having compared the accounts of the *GT* in these three biographies, we may conclude that they differ in some important aspects. The first is what we can term their biographical style. Moggridge is the professional historian of economic thought who is looking for evidence, context, dating and, as it were, steps back from the tasks of both textual exegesis and modelling. Skidelsky is more engaged in producing a narrative which is historically accurate, but which also digs into the personality of his author, searching for clues to access his inner feelings, motivations and even unconscious drives. Harrod is the "official" biographer, mindful of the responsibility of portraying his author according to the sensibility of his time, but he is also the affectionate admirer of the master who was his contemporary. The second aspect is what we can call their expertise, or even comparative advantage, in approaching the subject. Moggridge is the professional historian of economic thought, knowledgeable about facts, circumstances and people, who set up the necessary framework to place the *GT* within the development of economics as a discipline. Harrod is the economist,

engaged in his own research program which differed in scope and content from Keynes's, who is trying to convey the *GT* to a general public, but bearing also in mind the professional reader. Skidelsky is the historian with a superb command in story-telling, very versed in twentieth-century British culture, who is attempting to give his readers a summary of the book, taking care of its enduring fascination, the reactions it prompted and the controversies it still produces.

It would be vain to conclude this comparison by giving marks to each of the biographers in the attempt to establish which of them best performed the task of presenting the *GT* both to the practitioner of the subject and to the layman. In an article of some years ago, Gerrard (1991: 286) argued that we should not be “worrying about the multiple interpretations” of the *GT* since its continuing achievement consists precisely in the “ability to generate a diversity of research program”. Similarly, perhaps, we should have no worries about being confronted with further attempts to frame the *GT* within the life of John Maynard Keynes¹¹ as long as new material is brought to the fore. Changing readings of the *General Theory* have always been monitored in the professional literature (see recently Dimand 2010) either by reinstating what was believed to be its true meaning and message, or by denouncing its supposed failures and misgivings (see De Vroey 2004). The contribution of biographers – to place the book in its context, both in the life of Keynes and in his times – is not a minor task of scholarship, although not exhaustive. This should also be kept under scrutiny, to monitor what needs to be discarded or abandoned in their accounts. In the future additional evidence from various people's papers, correspondence and manuscripts may turn up, supporting or disproving the present historical reconstructions; in history, as in science, there are no results that cannot in principle be revised.

The layers of interpretation of the book – the original text, Keynes's own account, the biographer's story, and the heaps of reviews assessing them all – thus make appraisal of it on the occasion of the 70th year since publication a complicated, but no less intriguing and enticing undertaking.

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CHAPTER TWO

THE DEMISE OF THE QUANTITY THEORY OF MONEY*

MARIA CRISTINA MARCUZZO

1. The Traditional View

During the 1960s a dramatic change occurred in the field of monetary theory: the approach which held that the price level is determined by aggregate demand and aggregate supply whereas the supply of liquid resources, together with the schedule of liquidity preference, determine the interest rate was successfully challenged. The traditional view prevailed once again: the Quantity Theory of money regained the consensus of the profession, the media and the political world.

It thus appears that the alternative approach to the Quantity Theory had a very short spell in the history of economic thought; although there was a stream of opponents to the Quantity Theory running from the early mercantilists throughout the nineteenth century, it was only with the *General Theory* that a true alternative to the Quantity Theory reasoning was set out.

The Neoclassical synthesis incorporated the income-expenditure adjustment mechanism and the liquidity preference approach within its framework, but it was a weak defence against the assault of monetarism and the New Classical macroeconomics.

* An earlier version of this paper was presented at the European Conference on the History of Economics, Lisbon, 1996, and at the Annual Conference of AISPE, Pisa, 1996, and at an ESHET Conference held in Milan in November 2001. I am grateful to the Provost and fellows of King's College, Cambridge, for permission to quote from unpublished letters by Joan Robinson and D. Papineau for permission to quote from unpublished letters by Richard Kahn. I am grateful to V. Chick, M. Lippi, A. Rosselli, C. Sardoni and F. Vianello for helpful comments and suggestions.

In the standard macro textbook of so-called Neo-Keynesian orientation, an increase in the quantity of money, through its effect on spending, causes an increase in output. However, this is only a short-run effect; any increase in output beyond the natural or NAIRU level, brought about by expansionary policies which entails an increase in the nominal stock of money, keeps pushing wages and prices up until the 'real' quantity of money is back to its initial level. In the words of Dornbusch and Fischer:

In the long run, once wages and prices have had time to adjust fully, the model has the same predictions as the classical case [...] *The difference is only in the adjustment process.* In the classical case a monetary expansion leads immediately to an equiproportionate rise in prices with no real expansion. Here, *both* output and prices rise in the short and medium term, and only in the long run do we reach the classical case [...]. In the short run the prediction of [the] model more closely resemble the Keynesian case [...], and the more slowly that wages adjust to changes in employment, the greater the resemblance.

(Dornbusch and Fisher 1990: 495)

In the end, rather than an alternative approach to price level determination, the Keynesian approach appears as a complement to the Quantity Theory, valid to explain short-term fluctuations in output and prices.

Of course this is not what Keynes must have meant when he wrote in the Preface to the French edition of the *General Theory*, dated February 1939:

The following analysis registers my final escape from the confusions of the Quantity Theory, which once entangled me. I regard the price level as a whole as being determined in precisely the same way as individual prices; that is to say, under the influence of supply and demand [...]. The quantity of money determines the supply of liquid resources, and hence the rate of interest [...]

(Keynes [1936] 1973: xxxiv–xxxv)

In fact, the demise of the Quantity Theory of Money took Keynes a long way from his previous views.

In what follows I trace the development of this transition to an alternative theory to price level determination based on aggregate demand and aggregate supply. I argue that in the process which led to the new formulation, Kahn's construction of the aggregate supply curve, drawn in the expected proceeds-aggregate output space, was an important step, because it allowed for a straightforward derivation of the 'level of prices' as the ratio of expected proceeds to output. The generalized statement of

the Quantity Theory presented by Keynes in chapter 21 of the *General Theory* shows that an increase in prices – as a consequence of an increase in the stock of money – occurs in very special conditions. On the contrary, the Aggregate Demand and Aggregate Supply models, which became popular in the 1990s misrepresent the point against the Quantity Theory and thus facilitate its reinstatement as a general proposition.

2. Prelude

According to Kahn, “Keynes’ long struggle over a period of six years to produce a version of the *Treatise* worthy of publication was directed partly to an escape from the stranglehold of the Quantity Theory of Money in its crude form.¹ In the end Keynes was able to write that ‘The forms of the Quantity Theory [...] on which we have all been brought up [...] are but ill adapted for this purpose’ of exhibiting ‘the causal process by which the price level is determined, and the method of transition from one position to another’ [...]” (Keynes [1930] 1971: 120).

“Nevertheless” – Kahn continues – “Keynes seems to have been so much under the spell of the Quantity Theory that he could write about his Fundamental Equations as though they were ‘versions’ of the Quantity Theory” (Kahn 1984: 56).

In the *Treatise* the logic of the Quantity Theory is questioned on two grounds:

- 1) the slowness of the adjustment required to bring about the final equilibrium position renders it almost irrelevant as an explanation of actual processes;
- 2) since “a change in the total quantity of money [...] is algebraically consistent for a time with more than one set of consequences” (Keynes [1930] 1971: 243), the Quantity Theory cannot be interpreted as exhibiting a causal process.

The *Treatise* offers only the *destruens pars* of the criticism of the Quantity Theory and Keynes was able to provide the alternative approach only when he “succeeded in getting his theory of money, his theory of wages and Kahn’s multiplier into a coherent system” (Robinson 1966: viii). Moggridge dates Keynes’s first formulation of an alternative explanation of determination of the level of output in the early 1933,² but

¹ On Keynes’s own assessment of the relationship between the *Treatise* and the *General Theory*, see Marcuzzo (2002a).

² “[...] by early 1933 at the latest the basic output adjustment framework of the *General Theory* was in place, as were the theory of liquidity preference and the notion of the marginal efficiency of capital” (Moggridge 1992: 564–65). See

Kahn claims that at the time Keynes had not yet have a clear picture of the alternative approach.³

In fact, an argument similar to that presented in the *Treatise* is adopted by Keynes in a letter to Dennis Robertson of May 3, 1933, to reject the Quantity Theory:

In my present state of mind [...] I doubt that either version of the Cambridge equation is of any serious utility, and I can't remember that I have ever come across a case of anyone ever using either of them for practical purposes of interpretation [...]. One can of course write down quite a number of equations of this type, stating the *de facto* relationship of some one thing to some other. But are they of any use for causal interpretation? All the versions of the Quantity Theory, which make no distinction between swops and intermediate transactions and genuine production-consumption transactions, seem to me to tell one nothing.

(Keynes 1979: 18)

We have then evidence that Keynes associated the theory of liquidity preference with his earlier discussion in the *Treatise*,⁴ that the output adjustment mechanism was discovered at beginning of 1933 and that by Summer 1934 the main lines of the *General Theory* had become clear (Marcuzzo 2002b). In the steps which led to an alternative to the Quantity Theory, I will argue, Richard Kahn and Joan Robinson had an important role.

3. The Aggregate Apply Function⁵

Keynes attributed the crucial element in the transition from the *Treatise* to the *General Theory* – adoption of the theory of aggregate demand and

Marcuzzo (2002b) for a review of the literature on the chronology of the *General Theory*.

³ “By March 1934 clarity had been far from reached over the fundamental definitions” (Kahn 1984: 114).

⁴ Some commentators stressed the continuity between the *Treatise* and the *General Theory* as far as the theory of liquidity preference is concerned. Patinkin points to the instances in the *General Theory* where mention is explicitly made of the link with the bull-bear discussion in the *Treatise* of the relationship between the three motives in the demand for money (transactive, precautionary, speculative) in the *General Theory* and the income-deposits, business deposits and savings deposits of the *Treatise* (Patinkin 1993: 650). Trevithick maintains that “many of the characteristic features of the theory of liquidity preference had been formulated in *A Treatise on Money*” (Trevithick 1994: 82).

⁵ This section is mainly drawn from Marcuzzo (1996a).

aggregate supply to determine the short period level of prices – to the approach taken by Kahn in his “multiplier article”:

[...] It was Mr. Kahn who first attacked the relation of the general level of prices to wages in the same way as that in which that of particular prices has always been handled, namely as a problem of demand and supply in the short period rather than as a result to be derived from monetary factors.

(Keynes [1936] 1973: Appendix, 400, fn.)⁶

In his “multiplier” article, Kahn maintained that the determination of the level of price and output of consumption goods cannot but be derived from the theory of demand and supply. The aggregate supply curve of consumption goods, just like the supply curve of a single commodity, indicates the price necessary for each level of demand for consumption goods for that quantity to be produced, the demand for consumption goods being a function of total employment. Thus, the aggregate supply curve of the consumption goods sector represents “all the situations in which the price level is such as to confirm production and employment plans made by the firms in this sector” (Dardi 1990: 8).

Following a change in employment (brought about by the building of roads financed by the Government), we can study its effects on the prices and output of consumption goods, in other words the increase in production beyond the increase in investment, by observing the shape of the supply curve of consumption goods.

Kahn’s construction of the aggregate supply curve is meant to solve two problems:

- (a) what the price must be in order that a given quantity of consumption goods be produced;
- (b) how much employment is generated by the increase in the quantity of consumption goods which it is profitable to produce.

The answer to (a) depends on the assumed pattern of costs, the value and pattern of the elasticity of demand, and the behaviour pattern assumed to be followed by firms (profit maximization), while the answer to (b) depends on hypotheses about labour productivity and money wages.

Once hypotheses are made on (a) and (b), we can calculate the increase in price, output and employment, for any given increase in the primary employment, which is of course the multiplier.

⁶ The claim is substantiated by Kahn himself. In a letter to Patinkin of March 1974, he described one of the main important results of the 1931 article as “Finally disposing of the idea that the price level is determined by the quantity of money” (Patinkin and Leith 1977: 147).

The multiplier article can be seen then as the first step towards a theory based on aggregate supply and demand curves, although its application is limited here to the consumption goods sector. Extension of this analysis to output as a whole is accomplished in the discussion of the aggregate supply function as we find it in the lectures given by Kahn in Michaelmas Term 1932, as recorded in the notes taken by Lorie Tarshis (Tarshis 1979).⁷

The starting point for the construction of the aggregate supply curve is the same as in the multiplier article. The difference is that on the vertical axis we now have the expected proceeds necessary to induce entrepreneurs to produce a given output, while in the horizontal axis we have the level of output so that the question – what the price must be – is substituted by what the proceeds must be, in order that a given quantity be produced.

To derive the aggregate supply curve, we start from determination of the supply curve of each level of output for a single firm. The supply price answers the question: given marginal and average costs, associated with a given level of output, O_i , what the price must be in order that the firm that maximizes its profits be willing to produce precisely that level of output?

The level of output, O_i , will be produced only if profits are at a maximum; that is to say, only if in O_i marginal revenue equals marginal cost.⁸ Thus, on the basis of the well known relationship between price and marginal revenue, for a given elasticity of demand measured at O_i , the supply price, p_i , is:

$$p_i = \left(\frac{k}{k-1} \right) MC_i$$

where k = elasticity of demand and MC_i , = marginal costs at O_i . The supply curve is then given by,

$$Z(O_i) = p_i O_i = \left(\frac{k}{k-1} \right) MC_i O_i$$

It is worth noting that the above is a *general* formulation, which does not require special assumptions about market form or the shape of the marginal cost curve. Specific assumptions are reflected in the shape of the supply curve and in the value of its elasticity.

⁷ An outline of Kahn's lecture notes can be found in Kahn's papers, King's College Cambridge (henceforth RFK, followed by the catalogue number), RFK 4/15/4–14.

⁸ In addition the price must be at least as high as the variable unit cost, otherwise the entrepreneur would earn more (or, in this instance, lose less) by suspending production.

The aggregation problem is “solved” by assuming that, for any given level of output, the distribution among firms of their individual share is known. The aggregate level of output, O , is then:

$$\sum_{j=1}^m O^j$$

m = number of firms; O^j = output produced by the j th firm.

The total output of the economy is measured by a production index; to avoid double counting, intermediate products are of course subtracted from the total production, so that a measure in terms of value added is obtained.

The importance of the aggregate supply curve, drawn in the expected proceeds-aggregate output space, is that derivation from it of the “level of prices” is straightforward: for each level of output, it is given by the ratio of expected proceeds to output. This means that the level of price can be determined by the same forces as the level of output and not by the quantity of money.

What Kahn had achieved turned out to be an important step in the development of Keynesian ideas, as Joan Robinson reminded us years later: “A short period supply curve relating the level of money prices to the level of activity (at given money-wages rates) led straight from Marshall to the *General Theory*.” (Robinson 1969: 582).

The point can not have been fully understood even by the closest among Keynes’s associates, if in October 1934, Kahn felt the need to explain it to Harrod:

To my mind it is the most complete nonsense to suppose that the ideal behaviour of banks can be framed in terms of any propositions involving level of prices. How prices behave depends on how wage behave, and that in turn depends on how Trade Unions behave [...]. In short, I do not think in terms of money and prices. In the view of Keynes and his followers the Theory of Money has ceased to exist. Though of course that is an exaggeration (it is the quantity of money which determines the rate of interest), but the exaggeration is a pardonable one.⁹

4. The “Quantity Equation for Hairpins”

The question also arises of the role Joan Robinson played in facilitating Keynes’s progress towards the new formulation, bearing in mind of course

⁹ Letter of Oct. 22, 1934, quoted in Besomi (1999: 46).

her close friendship and collaboration with Richard Kahn (Marcuzzo 2001).

Kahn left for America in December 1932. The correspondence with Keynes is particularly interesting where Kahn gives his opinion on the dominant influence of the Quantity Theory of Money in the United States. For instance he wrote to Keynes: "I am thinking that the only way to save humanity is to lead a campaign against the Quantity Theory" (JMK L/K: 36).¹⁰ And in a paper he read to the Political Economy Club when he came back after four months, he added: "the scourge which goes by the name of the Quantity Theory of Money has swept the country" (RFK 3/18/3/15); "my visit to the United States inclines me to ascribe most of the ills of the world to the Quantity Theory of Money" (RFK 3/18/3/16).

The issues addressed in correspondence with Joan Robinson were mainly raised by their joint proof reading of the *Economics of Imperfect Competition* (Marcuzzo 1996a), but the questions debated in the previous year in the *Circus* also were discussed. Early in January 1933, Joan Robinson read Kahn's draft of his book on the *Economics of the Short Period* and naturally she was looking into Kahn's and Keynes's works, with those questions in mind. She wrote to Kahn on January 31, 1933:

I am beginning to have doubt about Maynard's long period equilibrium with underemployment. Wouldn't it lead to a fall in money wages? i.e. it isn't really equilibrium. For it can't be said to be in equilibrium with the price level tending towards *O*.

(RFK 13/90/1/85)

On March 2, 1933, he replied to her:

Naturally, you cannot raise the point, but if Maynard hints that he would like you to look at his stuff, I do wish you would. I must confess that I am a bit appalled at the prospect of having the sole responsibility thrust on to me after my return.

(RFK 13/90/1/163)¹¹

¹⁰ JMK stands for J.M. Keynes papers, King's College, Cambridge.

¹¹ A year and half later, when the building blocks of the *General Theory* were firmly laid out, Joan Robinson was so confident in her role that she could write to Kahn: "[...] of course I am absolutely full of views about the *Treatise*. Would Maynard like me to write him a Preface for the new work showing in what respects his ideas have altered?" (letter of Sept. 5, 1934; RFK 13/90/2/95). In fact, it was during that summer that a change occurred in the personal relationship between Keynes and Joan Robinson. She wrote to Kahn on Aug. 15, 1934: "[...] I see

Joan Robinson's contribution to the transition from the argument of the *Treatise* to that of the *General Theory* is contained in an article – “The Theory of Money and the Analysis of Output”, published in the first issue of the *Review of Economic Studies* in 1933 – where she gives an outline of Keynes's theory “as far as it had got in 1933” (Robinson 1951: viii). She later described it as a “kind of interim report, which clears the ground for the new theory but does not supply it” (Robinson 1966: viii).

The paper must have been written when Kahn was in America as we gather from his reaction in a letter to her of 20 March 1933:

Gifford also showed me your thing on the Theory of Money. I do think it ought to be published, but I suppose it can't be. It would be awfully illuminating to all those who live in darkness, and it is well done.
(RFK 13/90/1/200)¹²

The point of the article is to show that the aggregate supply and aggregate demand apparatus can be employed to determine the equilibrium level of output. Only if the supply of goods is perfectly inelastic will an increase in the quantity of money result in an increase in prices. But, if over a certain range the supply of goods is perfectly elastic, “a rise or fall in demand for goods [...] will be met by an increase or decrease in output without any changes in prices” (Robinson 1951: 56).

Joan Robinson goes as far as arguing that in fact the theory set out in the *Treatise* is concerned with determination of the level of output rather than the level of prices, and that Keynes failed in that book “to realize the nature of the revolution that he was carrying through” (Robinson 1951: 55).

The article contains an attack on the Quantity Theory of Money described as a tautology, “devoid of causal significance” (Robinson 1951: 55). The point is illustrated by what Joan Robinson refers to as Kahn's “Quantity Equation for Hairpins”.¹³ It is worth quoting the relevant passage in full:

Maynard signed ‘yours faithfully’ in type and crossed it out in ink so I can't really complain” (RFK 13/90/2/40).

¹² Charles Gifford was the student who used the marginal revenue curve in one of his essays for Austin Robinson, thus arousing the interest of Joan Robinson and Richard Kahn who then started their joint work on imperfect competition. See Marcuzzo (1994; 2001).

¹³ Among Kahn's papers a handwritten document, containing the notes of the lecture which Kahn gave to Graduate Club in Chicago in January 1933, has been found where the Quantity Equation for Hairpins is set out. See RFK papers, file 4/17. Also Dardi (1994: 91) agrees that the “quantity theory for hairpins” testifies

Let P be the proportion of women with long hair, and T the total number of women. Let $\frac{1}{V}$ be the daily loss of hairpins by each and M the daily output of hairpins. Then $M = \frac{PT}{V}$ and $MV = PT$. Now suppose that the Pope, regarding bobbed hair as contrary to goods morals, wishes to increase the proportion of long-haired women in the population, and asks a student of economics what he has best do. The student sets out Mr. Kahn's equation, and explains it to the Pope. "All you need do", he says, "is to increase M , the daily output of hairpins (for instance, you might give a subsidy to the factories) and the number of long-haired women is bound to increase". The Pope is not quite convinced. "Or, of course", the student adds, "if you could persuade the long-haired women to be less careless, V would increase, and the effect would be the same as though the output of hairpins had increased".

The parable reiterates the criticism of the Quantity Theory of Money according to the argument set out in the *Treatise*, but hints at an alternative explanation where the direction of cause and effect between money and prices is reversed.¹⁴ What of course the article does not provide is the framework in which the different elements of the new theory – the liquidity preference, the output-adjustment mechanism and the wage theory – fit logically together. For this we have to turn to the *General Theory*.

5. Four Critical Elasticities

In chapter 21 of the *General Theory* Keynes presents his theory of the determinants of the price level and shows how it stands in relation to the Quantity Theory.

The price level for output as a whole is determined, as in the case of a single industry, by marginal cost and the scale of output. However, in the case of aggregate output, a new element must be taken into account, namely the effect of changes in aggregate demand both on costs and on volume (Keynes [1936] 1973: 294).

In the aggregate if the rates of remuneration of the different factors of production, which enter into the marginal costs, change in the same

"to Kahn's resolution in waving the anti-quantity theory flag at the time when Keynes and the 'Circus' were still groping for a way out of monetary orthodoxy".

¹⁴ Kahn gave a clear statement of the reversed causality between money and prices as early as 1932 in a paper "Public Works and Inflation" he presented to the American Statistical Association of Cincinnati, where he wrote "the quantity of money is an effect, not a cause." (Kahn 1972: 30).

proportion as the wage-unit, then the level of price depends partly on the wage unit and partly on the volume of employment.

Keynes then proceeds to discuss the conditions under which the result of the strict Quantity Theory – a proportional increase in prices as consequence of an increase in the quantity of money – actually hold.

First, we have to consider the effect of a change in the quantity of money on effective demand, and then how the change in effective demand spends itself in increasing output and prices. In other words, the elasticity of changes in prices with respect to a change in the quantity of money (e) is given by the elasticity of changes in effective demand with respect to changes in the quantity of money (e_d) times the elasticity of changes in prices with respect to changes in effective demand (e_p).

Formally, we have that:

$$e \left(= \frac{M}{P} \frac{dP}{dM} \right) = e_p e_d$$

It is immediately evident that, if effective demand increases in the same proportion as the quantity of money, that is to say if we assume a constant ratio between effective demand and the quantity of money, namely if $e_d \left(= \frac{M}{D} \frac{dD}{dM} \right) = 1$, prices will increase in the same proportion as the increase in effective demand, whenever $e_p \left(= \frac{D}{P} \frac{dP}{dD} \right) = 1$, where D is effective demand and P is the level of prices.

The derivation of e_p gives $e_p = 1 - e_e e_o (1 - e_w)$,¹⁵ where $e_o \left(= \frac{N}{O} \frac{dO}{dN} \right)$ is the elasticity of output in response to changes in employment demand, $e_w \left(= \frac{D}{W} \frac{dW}{dD} \right)$ is the elasticity of money-wages in response to

¹⁵ It is here assumed that at p. 304 Keynes made a slip in the definition of e_o , writing $e_o = \frac{D}{O} \frac{dO}{dN}$ rather than $e_o = \frac{N}{O} \frac{dO}{dN}$. Otherwise the expression of p. 305, $e_p = 1 - e_e e_o (1 - e_w)$, is inconsistent with that of p. 285, where $e_p = 1 - e_o (1 - e_w)$, in the simplified case of $e_d = 1$. Two explanations have been put forward in the literature to account for this “inadequate derivation” (Keynes [1936] 1973: 385) of the expression of p. 305. The first is that in the expression of p. 305 Keynes implicitly assumed $e_e = 1$ (Naylor 1968; Chick 1983: 273). The second explanation, which is favoured here, is that Keynes used the same symbol for two different definitions of e_o (Borch 1969). According to the definition given on pp. 284–85, $e_o^1 = \frac{D_w}{O} \frac{dO}{dD_w}$, according to the second, which is assumed here, $e_o^2 = \frac{N}{O} \frac{dO}{dN}$.

Since $e_o^1 = \frac{D_w}{O} \frac{dO}{dD_w} = \frac{D_w}{N} \frac{dN}{dD_w} \frac{N}{O} \frac{dO}{dN} = e_e e_o^2$, there is no contradiction between the two expressions. The slip, however, does not impair the logic of the argument.

changes in effective demand and $e_e \left(= \frac{D}{N} \frac{dN}{dD} \right)$ is the elasticity of change in employment in response to a change in effective demand. We then have:

$$\begin{aligned} e \left(= \frac{M}{P} \frac{dP}{dM} \right) &= e_d [1 - e_e e_o (1 - e_w)] \\ &= e_d (1 - e_e e_o + e_e e_o e_w) \end{aligned}$$

The above expression, according to Keynes, “can be regarded as a generalized statement of the Quantity Theory of Money” (Keynes [1936] 1973: 305).

Thus the quantitative result is made dependent upon the values of four critical elasticities:

e_d = liquidity factors, which determine the demand for money in each situation;

e_w = labour factors, which determine the extent to which money-wages are raised as employment increases;

e_e, e_o = physical factors, which determine the rate of decreasing returns as more employment is applied to the existing equipment.

Thus, if the public hold a constant proportion of their income in money, $e_d = 1$; if money wages are fixed, $e_w = 0$; if constant returns prevail, $e_e e_o = 1$; if there is full employment either of labour or equipment, $e_e e_o = 0$ (Keynes [1936] 1973: 306).

In fact, there are many conditions under which $\frac{M}{P} \frac{dP}{dM}$ is equal to 1; for instance, as we have seen, if $e_d = 1$ and $e_w = 1$, but also: either

$$\text{if } e_d = 1, e_w = 0 \text{ and } e_e e_o = 0;$$

or

$$\text{if } e_d = 1 \text{ and } e_o = 0$$

and of course a variety of other combinations.

However, “on plausible assumptions relating to the real world”, according to Keynes, it is very unlikely that the elasticity of the price level with respect to a change in the quantity of money will turn out to be equal to 1, and therefore it is “safe to make the generalization [that] as a rule [is] less than unity” (Keynes [1936] 1973: 306).

The really important result achieved by Keynes is not, of course, to have chimed what any defender of the Quantity Theory of Money would readily concede, but to have provided us with description of a transmission mechanism in which behavioural relationships are ordered according to a clear chain of causes and effects. As Kahn later put it, the novelty of the

approach is the view of “the monetary and credit mechanism as a matter of straightforward cause and effect, expressed in terms of physical realities” (Kahn 1972: 145).

6. Concluding Remarks

Keynes’s generalization of the Quantity Theory of Money follows a line of reasoning similar to that employed in the theory of income determination: the Quantity Theory of Money results apply under very *special conditions*: far from being a general proposition, it can be applied in very special circumstances, which rarely occur in the real world.

It could be argued that the attempted reconciliation with the tradition, as in many other instances of Keynes’s tactics against the orthodox view,¹⁶ ended up as serving its rehabilitation. Rather than stressing that the Quantity Theory of Money results apply under very special conditions, the Neoclassical synthesis first, and the so-called Neo-Keynesian models later, swept those very special assumptions under the carpet so that the very point Keynes was making against the Quantity Theory of Money was completely missed.

The generalized statement of the Quantity Theory of Money presents a transmission mechanism from monetary to real factors that can be broken down into a series of steps, which may lead to very different outcomes.

For instance, an increase in the quantity of money may not generate a proportional increase in effective demand; the increase in effective demand may not give rise to a predictable rise in wages, and the rise in output and employment and prices may occur in various combinations so that there is not only one possible outcome.

Moreover, changes in the supply of money bring about changes in the interest rate only if the schedule of the liquidity preference is represented as a well-defined curve or a stable relationship. Kahn, in his Liquidity Preference article, stressed “the unsuitability of thinking of a schedule of liquidity preference as though it could be represented by a well-defined curve or by a functional relationship expressed in mathematical terms or subject to econometric processes” and held Keynes responsible for giving way “to the temptation to picture the state of liquidity preference as a fairly stable relationship” (Kahn 1972: 90).¹⁷

¹⁶ Harcourt and Sardoni (1994) rightly argue that part of Keynes’s strategy to gain acceptance for his new ideas was to accept as many assumptions of the classical theory as possible, then deriving conclusions at variance with it.

¹⁷ Dardi rightly argues that “hints may be found, especially in Kahn’s later writings, which point to long-standing differences between him and Keynes on the

To sum up, costs conditions and the degree of competition set the increase in prices necessary for an increase in production to take place, if constant returns do not prevail, so that firms maximize their profit, but it is the level of expected demand which sets the level of production, and an increase in the level of expected demand is not synonymous with increase in the quantity of money.

The chain of causes and effects is misrepresented in the so called AD/AS model which became popular in the 1990s. An increase in the quantity of money *always* shifts the AD curve up and to the right, except in liquidity trap, since a higher money supply in real terms makes the interest rate fall, and investment and income increase. Then, in order to see what happens to the price level the aggregate supply curve is brought in. The AS curve is presented, in the long run, as perfectly inelastic at the “natural rate of unemployment” or at the NAIRU level, whereas in the short run it is presented as upward sloping, because of fixed nominal wages and/or misperceptions of price changes by workers and firms. It follows that how the increase in the quantity of money spend itself on prices and output is made dependent on the elasticity of the aggregate supply curve.

However, the shape of the AS curve reflects conditions in the labour market rather than the structure of costs in the economy. Any increase in prices, associated with changes in income and employment is mainly accounted for by an increase in money wages, more or less proportionally, according to the assumptions made on the behaviour of labour productivity and mark up. It is thus apparent that the AS curve is nothing more than a travesty of the empirical regularity known as the Phillips curve (Marcuzzo 1996b).

On the contrary, we saw that the aggregate supply function (ASF) devised by Kahn – and adopted by Keynes in relation to employment levels¹⁸ – is a relationship between different levels of output and those *expectations of proceeds* that would induce entrepreneurs to make them available. Its position and shape is determined by the marginal costs of the various firms that make up the economy and the elasticities of the demands for the products of these various firms, whereas Keynes’s aggregate demand function (ADF) shows the level of proceeds the firms expect to realize from the sale of their outputs. Their intersection gives the

very foundations of monetary theory and on the most appropriate ways of dealing with the influence of monetary theory on the rate of interest” (Dardi 1994: 91).

¹⁸ If average labour costs are constant and marginal labour costs are a constant fraction of marginal costs, then the supply functions against output and employment have the same characteristics. See Tarshis (1979: 377).

equilibrium level of output at which profits are maximized. The equilibrium level of output is determined by the level of effective demand and the price level corresponding to it is then determined on the basis of the assumptions made in relation to the costs functions and the degree of competition.¹⁹

The demise of the Quantity Theory approach implies the acknowledgment that it is the level of effective demand which sets the level of production, while cost conditions and the degree of competition determine the prices at which that output can be sold. Thus prices are seen as the outcome of the profitability conditions prevailing in the economy and not of the level of the quantity of money.

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¹⁹ In the case of the supply curve in relation to aggregate output (AFS-O), we have seen that it is given by the slope of the straight line joining the corresponding point on the ASF-O to the origin. In the case of the supply curve in relation to aggregate employment, (ASF-N) the slope of the line from any point on the function to the origin represents the ratio of value added to the level of employment (Tarshis 1979: 380).

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CHAPTER THREE

FROM THE FUNDAMENTAL EQUATIONS TO EFFECTIVE DEMAND: “NATURAL EVOLUTION” OR “CHANGE OF VIEW”?

MARIA CRISTINA MARCUZZO

1. Premise

One of the difficult tasks, which any scholar of Keynes's writings is confronted with, is that of tracing the relationship between the *General Theory* and the *Treatise*. To this controversial matter, which has spawned a large literature, I would like to contribute with a further element which does not seem to have received as much attention as others, namely an investigation into Keynes's own assessment of the relationship between his two books.

Keynes was convinced that there was a fundamental continuity between the *Treatise* and the *General Theory*. Throughout the process which led him from the former to the latter book, he repeatedly claimed that the *Treatise* analysis was in fact compatible with that of the *General Theory* and that he had made the new argument only “much more accurate and instructive” (Keynes [1936] 1973a: 77).

In fact, the transition from the *Treatise* analysis, as presented in the Fundamental Equations and that of the *General Theory*, as incorporated in the principle of effective demand, required the introduction of new concepts and a change in definitions, which eventually made the latter approach quite distinct from the former. However, Keynes wanted his readers to believe that “under the surface [...] the essential ideas are the same” (Skidelsky 1992: 442), and presented his new book as a “natural evolution” in his line of thought (Keynes [1936] 1973a: xxii).

In this chapter, I follow this evolution step by step, comparing Keynes's own measurement of the distance from his previous framework of analysis with our present understanding of the change involved in the process of building up the new one. To spin the narrative, I divide the 5 years spanning from the publication of the *Treatise* to that of the *General Theory*, into three time-legs, which I have marked as Stage I, II and III. The first dates from comments and criticism on the *Treatise* (autumn 1930) to the early material for the new book and lectures (spring 1932). Stage II spans from the Easter Term 1932 lectures, which were attended by members of the "Circus", to the summer 1933, when the writing of the new book was well under way. The final stage runs from the 1933 Michaelmas Term lectures and the contemporary fragments of versions of the *General Theory*, when the principle of effective demand was clearly expounded, to the final touches to the proofs in December 1935.

2. Stage I: Autumn 1930–Spring 1932

It will be remembered that in the *Treatise* the equilibrium condition of the overall system is given by the equality of the value of investment (I) to its cost of production (I') and by the equality of the value of investment to saving (S). This corresponds to a situation of zero extra profits in the consumption (Q_1) and investment sectors (Q_2), and to equality of investment to saving. Total profits (Q) are then the equilibrating mechanism not only between cost of production and the value of output, but also between saving and investment (Keynes [1930] 1971: 124):

$$Q_1 = I' - S,$$

$$Q_2 = I - I',$$

$$Q = Q_1 + Q_2$$

$$= I - S.$$

There are different effects on the system, according to how profits are spent. In the "widow's cruse" example (Keynes [1930] 1971: 125), if entrepreneurs spend their extra-profits on consumption goods, the positive gap between the cost of investment goods and saving widens: the price of consumption continues to increase, and so do profits. When profits are positive entrepreneurs have an incentive to increase output and employment; if losses occur, both output and employment will be reduced. However, adjustment of output is not the object of the analysis in question,

although in the “banana plantation” example (Keynes [1930] 1971: 158ff) the effect of losses (due to an autonomous increase in saving) on output is taken up to show the potential instability of the system (Barens 1989). If, starting from an equilibrium condition (prices = costs of production, saving = investment), there is an increase in saving, the price of consumption goods fall, entrepreneurs incur losses and so cut back on employment. A new equilibrium position is reached only when either: (a) output is reduced to zero; (b) the reduction in saving no longer occurs; and (c) investment increases and exceeds saving (Keynes [1930] 1971: 160). The possibility that equilibrium is reached at a positive level of output was not envisaged.

The Fundamental Equations apparatus was the object of criticism from the outset. Hawtrey, Robertson, Pigou and Kahn objected to some of Keynes’s definitions and conclusions. In particular, three issues came to the forefront: (a) the “independence” of the forces underlying determination of the two price levels; (b) the definition of saving; and (c) the price–output adjustment mechanism.

As a result of the various criticisms, a few months after publication of the *Treatise* Keynes recast his argument in a new form. The first evidence of a change in formulation is the account which he gave in the Harris Foundation lectures (June 1931) of the reason for expecting a positive equilibrium level of output to be reached:

A given deficiency of investment causes a given decline of profit. A given decline of profit causes a given decline of output. Unless there is a constantly increasing deficiency of investment, there is eventually reached, therefore, a sufficiently low level of output which represents a kind of spurious equilibrium.

(Keynes 1973b: 356)

Unlike the “banana plantation” example, the possibility that the equilibrium level of output may be less than zero is now given, on the basis of the assumed behaviour of saving: “[...] as soon as output has declined heavily, strong forces will be brought into play in the direction of reducing the net volume of saving” (Keynes 1973b: 356). This result was anticipated in a letter to Kahn of 17 April 1931 (during the “Circus” period): “[...] when O [output] is falling, unless entrepreneurs’ expenditure on consumption falls faster than O , there is a *reduction* of saving” (Keynes 1979: 12). What, however, remained to be determined was at which level of profit entrepreneurs are no longer inclined to continue production, or, on the other hand, have an incentive to expand

production. The solution was found in a new relationship, which Keynes attributed to Kahn (Keynes 1973b: 368), the aggregate supply curve.¹

During the summer of 1931, Keynes worked to pin down cases where “points of equilibrium output can be reached which fall short of maximum and zero” (Keynes 1973b: 374). The mechanism he submitted to Kahn in a letter of 20 September 1931 may be outlined thus: an increase in investment (I) raises profits (Q), part of the increase in profits going into savings (S); at the same time, an increase in profits raises output (O), along the aggregate supply curve, and thus brings about a further increase in savings. However, the profit per unit of output (Q/O) declines as output increases since profits fall as saving rise. Keynes’s conclusion was that “If Q/O reaches zero before O reaches maximum, we have ‘long- period unemployment’, i.e. an equilibrium position short of full employment” (Keynes 1973b: 374).

Kahn was not totally convinced (Keynes 1973b: 375); it was clear that the question was far from being settled. Keynes had to work out the new formulation afresh, which is what he set out to do in the autumn of 1931. He told Lydia on 22 November: “I have begun again quietly in my chair writing about monetary theory” (Skidelsky 1992: 432). In fact, early in 1932, in a draft,² he was able to present the “vital generalisation” of the proposition that entrepreneurs tend to increase or decrease their output according as their profit is increasing or decreasing, which runs as follows:

[...] increases and decreases in the volume of output and employment depend upon the changes in disbursement relative to earnings (which is the alternative mode of expression I now offer to the reader) or in investment relatively to savings (which is the mode of expression I employed in my *Treatise on Money*).

(Keynes 1973b: 380)

¹ “You have over a short period something of the nature of a supply curve which tells you that for a given level of prime profit [i.e. the difference between gross receipts and prime costs] there will be a given level of output, that if you have a certain amount of prime profit, that would be sufficient to bring a certain quantity of potential output over the prime cost level [...] so if you have a supply curve which is valid over the short period only [...] you could only increase employment and output by increasing prime profit” (Keynes 1973b: 368).

² According to Moggridge’s dating (Keynes 1973b: 380), this is the “earliest” of the fragments of the 1931–2 period of writing. Moggridge’s dating of the early *General Theory* fragments was questioned by Patinkin (see Patinkin 1993: 654–56). I do not see enough evidence supporting Patinkin’s claims.

The condition for equilibrium was specified accordingly:

[...] provided ΔS [changes in saving] and ΔE [changes in earnings] have the same sign, and that investment does not change, *any* level of output is a position of stable equilibrium. For any increase of output will bring in a retarding factor, since ΔS will be positive and consequently I being assumed constant, ΔQ will be negative; whilst equally any decrease of output will bring in a stimulating factor, since ΔS will be negative and consequently ΔQ positive.

(Keynes 1973b: 386–87)

Summing up, in Stage I Keynes inherited a framework of analysis based on the Fundamental Equations, in which profits were the “main spring of change”, through variations in the price levels of consumption and investment goods. As a consequence of much criticism within the “Circus” and by Robertson, Hawtrey and Pigou, with the main focus on the supposed independence in determination of the two price levels and the neglect of output as opposed to price adjustment, Keynes was led to forge new tools. In the Harris Foundation lectures we find the first “hints” (Keynes 1973b: 79) of a move towards a different approach. During the summer 1931 and until he resumed lecturing in April–May 1932, he searched for the conditions for an equilibrium of output to occur, at less than full employment. His solution rested on what he believed to be only a “generalisation” of the old argument, but which was instead a switch of focus: from investment-relative-to-saving to expenditure-relative-to-income.³

3. Stage II: Easter Term 1932–Summer 1933

When Keynes resumed⁴ lecturing on April–May 1932⁵ he presented his new argument as a “generalisation” of that of the *Treatise*.⁶

³ See also the letter to Hawtrey, 1 June 1932: “I put less fundamental reliance on my conception of savings and substitute for it the conception of expenditure” (Keynes 1973b: 172).

⁴ Keynes postponed the lectures he was to have held in the 1931 Michaelmas term to April–May 1932 feeling that a “theoretical clean up” was needed before he could “re-lecture stuff which is available in print”. Letter to Austin Robinson of 28 September 1931 (EAGR papers, Marshall Library, box 9).

⁵ We have fragments from which he appeared to have lectured on 25 April and 2 May.

⁶ “I believe that [Keynes] thought then [in April 1932] and I think he thought later – of the *General Theory* as supplementing rather than replacing the *Treatise*” (E.A.G. Robinson 1986: 7).

[...] fluctuations of output and employment for a given community over the short period [...] depend almost entirely on the amount of current investment. This goes beyond the contention of my *Treatise*, where it was meant to depend on the amount of investment *relatively* to saving [...]. This less restricted generalisation is the result of taking account of the probable effect on saving of a change in the amount of investment.

(Keynes 1979: 41)

This result was reached on the “presumption” (Keynes 1979: 41) that changes in saving, following a change in investment, rather than offset, reinforce the effects of the change in investment on profit and output. The main argument was that changes in investment and output were positively correlated: an increase in output is equal to an increase in sales receipts (= income); an increase in investment is equal to an increase in sales receipts (= income) *minus* expenditure on consumption; consumption and income are positively correlated, therefore changes in investment and changes in output have the same sign. This “proof” was challenged by Kahn, Austin and Joan Robinson who signed a Manifesto and offered an “alternative” (as Keynes put it) or “complementary” (as Joan Robinson had it in her subsequent correspondence) solution (Keynes 1973b: 378). The authors of the Manifesto claimed that demonstration would be better handled “by the method of supply and demand” (Keynes 1979: 43). The increase in investment – they argued – leads *directly* to an increase in the level of output because it raises the demand for consumption goods; assuming as given the supply conditions of these goods, the new level of output of consumption goods and thus the aggregate level of output can *immediately* be determined.⁷

Keynes was reluctant “to scrap all my present half forged weapons” (Keynes 1973b: 378), as he wrote to Joan Robinson, but shortly afterwards he gave in. In the lectures of Michaelmas Term 1932, when he changed the title of his course to “The Monetary Theory of Production”,⁸ he took up the “method” of the Manifesto. However, once again he pledged that “a change in demand as a whole relatively to supply as a whole due to deficient disbursement [...] is the same thing as what in my *Treatise on Money*, I have called an excess of saving over investment” (Keynes 1979: 53).

⁷ In 1980 Joan Robinson reviewed the vol. XXIX of the *Collected Writings of J.M. Keynes*, where the Manifesto was first published. She argued that: “[...] Keynes, in his lectures, was still using the cumbersome *Treatise* definitions, which turn on a difference between saving and investment, but he was using them to get the same results”. (Robinson 1980: 391).

⁸ Of these lectures there survive fragments from 10 October and 14 November.

In those lectures, windfall profits are the signals which induce entrepreneurs to revise their production decisions, but whether or not entrepreneurs are making profits is now made dependent on whether disbursements (i.e. expenditure) are greater than earnings. According to his new terminology (Rymes 1989: 57), unlike the *Treatise*, total income, E' , includes profits, being defined as:

$$E' = E + Q$$

while, E , retains its old meaning of earnings. Moreover, the “new term” (Rymes 1989: 57) disbursement, D , is defined as the sum of investment, I , and expenditure on consumables, F , which are made equal to income. Then we have

$$D = I + F = E' = E + Q$$

and

$$Q = I - (E - F),$$

hence

$$Q = I - S.$$

Parallel to the change in the definition of income, a new concept of saving was introduced, which Keynes labelled “surplus”, retaining $S(= E - F)$ for saving:

$$S' = S + Q.$$

Equality is said always to exist between investment and surplus, the adjustment mechanism being provided by the price of consumables (Rymes 1989: 62); saving being here described as “something that has to occur to make more investment possible at the existing price level” (Rymes 1989: 61).

The ambiguity of Keynes’s position at the time – his formulation being halfway between the *Treatise* and the *General Theory* – is well revealed by the following passage from a fragment from which he appears to have lectured on 14 November 1932:

[...] if, starting from a position of equilibrium with saving and investment equal, the price level stable and the factors of production fully employed, there occurs a change which causes the rate of interest existing at the

moment to become such as to cause saving to be in excess of investment⁹ prices will fall, rates of earnings will fall, and output will fall, in accordance with the argument in my *Treatise of Money*.

(Keynes 1979: 56)

Certainly, unlike the *Treatise*, we have here a mechanism preventing output (and/or prices) from falling to zero or infinity: “neither prices nor output will fall forever; and they will [...] come to rest again at some position from which they will have no further tendency to depart” (Keynes 1979: 57). The mechanism is provided by the assumption that expenditure always increases less or decreases more than does income (“whenever there is a change in income, there will be a change in expenditure the same in direction but less in amount”, Keynes 1979: 38). However, saving is not yet fully integrated as a dependent variable in the output adjusting mechanism.

Early in 1933, the changed political climate prompted Keynes to write four articles for *The Times* (published between 13 and 16 March 1933) to give his new approach an airing and to relaunch a plan for public spending. These articles were subsequently published as a pamphlet, *The Means to Prosperity*. A further contribution came with the article “The Multiplier” (where the term later to become familiar made its first public appearance) published in *The New Statesman* of 1 April 1933).

Moggridge is persuaded – unlike Patinkin (1976) – that by the time of this article the “penny had firmly dropped for the theory of effective demand” (Moggridge 1992: 564). Certainly, a visible leap forward from the *Treatise* was accomplished in Stage II, with the crucial discovery of the income-expenditure approach, which provided the framework where the multiplier could be fully accommodated.¹⁰

As late as 17 August 1933, writing to Macmillan, Keynes appeared to think that he could revise the *Treatise* accordingly, believing that he was just putting off revising it “until my next book has appeared” (Keynes 1973b: 420). As we know, the revision was not to be and perhaps could never have been.

⁹ In retrospect Kahn was startled by this proposition: “It is disconcerting in these October [sic] lecture notes to read of the rate of interest ‘such as to cause saving to be in excess of investment’” (Kahn 1984: 113n).

¹⁰ In the retrospective evaluation of his “multiplier” article, Kahn wrote: “I was handicapped having to translate my thinking into the definitions of the *Treatise*” (Kahn 1984: 100).

4. Stage III: Michaelmas Term 1933–December 1935

On the basis of the evidence of the lectures of Michaelmas Term 1933, and the contemporary¹¹ fragments of versions of the *General Theory* that came to light in Tilton's "laundry hamper", most commentators (Dimand 1988: 167; Moggridge 1992: 562; Patinkin 1976: 79; 1982: 33; 1993: 656) agree that by that time the conception of effective demand had been accomplished.

In "an early typed and hand-written draft of what eventually became chapter 5 of the second 1933 draft table of contents" (Keynes 1979: 68), Keynes presented again "our fundamental equations"; the only changes of notation (from the lectures in the previous year) are C for F , consumption expenditure, while Y , income, makes its first appearance:

$$Y = E + Q = C + I = D$$

or

$$Q = D - E = I - (E - C).$$

Facing once again the task of accounting for the change in the definition of saving from the *Treatise*, Keynes presented the following:

$$S = Y - C = E + Q - C,$$

and then explained that he had decided to retain the notation, S , and the word *Saving* for $Y - C$ and to define S' , corresponding to the definition of saving in the *Treatise*, as *Economising* (Keynes 1979: 69). He then rewrote the price equations of the *Treatise*, insisting that although the definitions were not identical with those given in the previous book, "they deal with substantially the same concepts which I was then driving at" (Keynes 1979: 72).

We have now two definitions of savings (S and S') and two corresponding definitions of profits (Q and Q') to distinguish their meaning from that in the *Treatise*, according to the following expression:

$$S' = E + Q' - C.$$

He stressed the compatibility of his present treatment with the *Treatise*, by saying that Q' was the "flow of quasi-rent relevant to long-period

¹¹ In fact, there is no evidence on whether the fragments corresponding to the first and second 1933 draft table of contents (Keynes 1979: 63–75) were written during the summer, but it is a plausible inference.

expectations”, while Q is relevant for the short period (Rymes 1989: 107; Keynes 1979: 72).

The Fundamental Equations had by now (Rymes 1989: 109) become:

$$Y = E + Q = C + I = D,$$

$$S = E + Q - C = Y - C,$$

$$\Delta S = \Delta Q + \Delta(E - C) = \Delta I,$$

$$\Delta S' = \Delta(E - C),$$

hence

$$\Delta Q = \Delta S - \Delta S'$$

and

$$\Delta Q = \Delta I - \Delta S'.$$

When ΔQ is positive, because investment is increasing faster than the community is economising (Rymes 1989: 111), firms increase output. To be noted is that in this formulation the role of profits has changed, since now the level of output is dependent on *prospective* rather than *actual* magnitude. In fact, in the fragment corresponding to the first 1933 draft table of content Keynes wrote that the level of output depended “on the amount by which the sale proceeds of output as a whole are expected to exceed their variable cost” (Keynes 1979: 64); in other words, the relevant magnitude had become *ex ante* or expected profits and not the *ex post* or realised profits, as in the *Treatise*.¹² Eventually, in the fragment of the version of chapter 3 corresponding to the last index of 1933 (December), he made quite clear that the introduction of the principle of effective demand represented the novelty in the *General Theory* treatment:

In my *Treatise on Money* the equality of saving and investment, as then defined, was a condition equivalent to the equality of aggregate expenditure and aggregate costs, but I failed to point out that this by itself provided only for neutral equilibrium and not for, what one might call, optimum equilibrium.

(Keynes 1979: 91–2)

¹² Dimand (1986) noticed that the *Treatise* profits are always *ex post* windfalls magnitudes, except for one passage (Keynes [1930] 1971: 143) in which they are considered as an *ex ante* measure of profitability.

In March 1934, Keynes was convinced that the book was by then “nearing completion” (Keynes 1973b: 422). From this period, we have the versions of chapters 6–12 of the index to the book, which now bore the title *The General Theory of Employment, Interest and Money*, written before his journey to the United States in June 1934, and the provisional versions of chapters 8–9 written over the summer.¹³ In those drafts he insisted on compatibility with the *Treatise* analysis, by referring to entrepreneur’s windfall profits or losses as the difference between effective demand and income (Keynes 1973b: 425) and explaining the change in the definitions of income and saving as “a change of terminology and not a change of view” (Keynes 1973b: 476).

The issue of explaining the relationship between the new book and the old one arose again. On 29 November 1934, he wrote to a Spanish correspondent, Luc Beltram:

[...] in a work of mine which will probably come out in about a year’s time I deal with the underlying theory on what at any rate on the surface, would appear to be lines rather different from those adopted in my *Treatise on Money*. Under the surface, however, the essential ideas are the same.

(Skidelsky 1992: 442)

The *General Theory* was finished in late December 1935. In the final version, Keynes carefully indicated where his new argument departed from the old. First, there was the change in the definition of income:

[...] I should at once remind the reader that in my *Treatise on Money* I defined income in a special sense. The peculiarity in my former definition related to that part of aggregate income which accrues to the entrepreneurs, since I took neither the profit (whether gross or net) actually realised from their current operations nor the profit which they expected when they decided to undertake their current operations, but in some sense (not, as I now think, sufficiently defined if we allow for the possibility of changes in the scale of output) a normal or equilibrium profit; with the result that on this definition saving exceeded investment by the amount of the excess of normal profit over the actual profit.

(Keynes [1936] 1973a: 61)

Second, there was a new mechanism for output adjustment:

[...] by an excess of saving over investment I meant [i.e. in *The Treatise*] that the scale of output was such that entrepreneurs were earning a less than normal profit from their ownership of the capital equipment; and by

¹³ By the autumn of that year he was using chapters 2–14 of the first drafts of the *General Theory* for his lectures (Keynes 1973b; Rymes 1989).

an increased excess of saving over investment I meant that a decline was taking place in the actual profits, so that they would be under a motive to contract output.

As I now think, the volume of employment (and consequently of output and real income) is fixed by the entrepreneur under the motive of seeking to maximise his present and prospective profits [...]; whilst the volume of employment which will maximise his profit depends on the aggregate demand function given by his expectations of the sum of the proceeds resulting from consumption and investment respectively on various hypotheses.

(Keynes [1936] 1973a: 77)

Third, there was determination of the equilibrium level of output at less than full employment:

In my *Treatise on Money* the concept of *changes* in the excess of investment over saving, as there defined, was a way of handling changes in profit, though I did not in that book distinguish clearly between expected and realised results.¹⁴ I there argued that a change in the excess of investment over saving was the motive force governing change in the volume of output. Thus the new argument, though (as I now think) much more accurate and instructive, is essentially a development of the old.

(Keynes [1936] 1973a: 77–8)

Summing up, reinterpreting in Stage III his former approach based on the Fundamental Equations in the light of the latter, based on Effective Demand, Keynes claimed to have established compatibility between the two. The “expected increase of investment relatively to saving” as defined in the *Treatise* had become “a criterion of an increase in effective demand”. (Keynes [1936] 1973a: 78). So he felt confident to present the escape from his “old ideas” as continuity in his line of thought, granting that the exposition in the *Treatise* was “of course, very confusing and incomplete in the light of the further developments here set forth” (Keynes [1936] 1973a: 78).

5. Conclusion

Throughout the writing of the *General Theory*, Keynes was at pains to make the new approach compatible with the *Treatise*. First, he presented the argument, reached probably at the end of 1931, according to which changes in the volume of output and employment “depend upon the

¹⁴ My method there was to regard the current realised profit as determining the current expectation of profit.

changes in disbursement relative to earnings” as a “generalisation” of the old argument, where it was dependent upon changes in investment relative to saving. Second, during the second half of 1932, in adopting the new “method” – a fall in output and employment depended on “a change in demand as a whole relatively to supply as a whole due to deficient disbursement” – he presented it as “the same thing” as an excess of saving over investment. Third, when in the autumn of 1933 he introduced effective demand and showed that equality of aggregate expenditure to aggregate costs may well occur at a level of output below full employment, he very cursorily mentioned that in the *Treatise* he just “failed to point [this] out”.

Keynes managed to present his former approach as compatible with the latter by: (a) reinterpreting profits of the *Treatise* “as determining the current expectation of profit”; and (b) presenting a change in the excess investment over saving of the *Treatise* as “a criterion” of an increase in effective demand. However, he must have had doubts that his attempted reconciliation was entirely successful, since he wrote in the Preface to the *General Theory*:

what in my own mind is a natural evolution in a line of thought which I have been pursuing for several years, may sometimes strike the reader as a confusing change of view.

(Keynes [1936] 1973a: xxii)

The scope for the history of economic thought is to review existing records and textual evidence in order to provide evidence for interpretations and to explain developments of ideas. Unfortunately, the evidence is rarely unambiguous and interpretations are often the by-product of the purpose for which the historical investigation is undertaken. It thus happens that those aiming to discover compatibility among theories conceived at different times tend to draw a line of continuity, whereas those who are mindful of the time at which they were presented are likely to emphasise changes and discontinuities. In the quest for further clues, it may sometimes be attempted to make use of the narrative of the development of ideas given by the author. In this context, I think I agree with what one of Keynes’s biographers wrote: “I believe that one should accept Keynes’s retrospective account of how he came to his conclusions” (Moggridge 1992: 559). However, in assessing those conclusions, I cannot but interpret the approach based on effective demand as a “dramatic” change of view.

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CHAPTER FOUR

KEYNES AND PERSUASION

MARIA CRISTINA MARCUZZO*

Brilliant man as [Keynes] is, he is too brilliant to be persuasive with us Americans. Many Americans admire him. [...] But, rightly or wrongly, how many trust him? How many will accept his sales talk? No one.

(R. Leffingwell, 31 August 1945¹)

May it never fall to my lot to have to persuade anyone to do what I want, with so few cards in my hands.

(Maynard to Florence Keynes, 21 November 1945²)

1. Introduction

In this chapter, I examine the central role persuasion – in the two-way sense of persuading and of being persuaded – played in Keynes’s work, for it is crucial to an understanding of his behaviour in all of his multifarious endeavours. In the process of both elaborating and transmitting ideas, persuasion calls for ability in reasoning, the gift of arousing passions, and a particular flair in personal relationships – qualities that Keynes possessed to the utmost degree. But why was persuasion so important for him? Biography played a part, insofar as Keynes was embedded in the *milieu* of the highly educated British class, for which clubs, debating societies, and learned fellowships represented the bulk of social life. More fundamentally, however, persuasion was essential to his conception of economics as a method of moulding ideas

* I am grateful to Nerio Naldi, Annalisa Rosselli, Eleonora Sanfilippo, Anna Simonazzi, and Giordano Sivini for comments and suggestions. The usual disclaimers apply.

¹ Quoted in Skidelsky 2000: 407. Richard Leffingwell, an American lawyer, was at the time Director of J.P. Morgan.

² Quoted in Skidelsky 2000: 438.

and opinions in an exchange with others, as he explained in a celebrated passage of *The General Theory of Employment, Interest and Money*:

It is astonishing what foolish things one can temporarily believe *if one thinks too long alone*, particularly in economics (along with the other moral sciences), where it is often impossible to bring one's ideas to a conclusive test either formal or experimental.

(CWK VII: xxiii; emphasis added)

Keynes formed his ideas in the process of submitting them to others, and we have ample evidence of his style of work and reasoning intertwined in close personal relations. In order to be convinced himself and to persuade another of an argument, Keynes needed to engage in exchanges that had a strong emotional side (affection, trust, respect), affording a “meeting of minds” (one of Keynes’s favourite expressions) that for him was conducive to fruitful interaction. In a collective work in which, by reviewing the correspondence, we examined extensively Keynes’s relationship with his closer fellow economists, we concluded that “the group of Keynes’s correspondents [...] seems to have been an extended community, membership of which depended not so much or not only on academic performance as on the capacity to encapsulate and convey understanding through discussion” (Marcuzzo and Rosselli 2005a: 9).

We found several examples of Keynes’s style of working by forming and refining his argument *vis-à-vis* his interlocutors, with an ample range of cases in which the “meeting of minds” was thwarted, intermittent, or wholly successful. In the drafting of his two major books, *A Treatise on Money* and *The General Theory*, his former students Denis Robertson and Richard Kahn played essential roles as critics and collaborators.³

In his activities as policy adviser, Keynes was in constant contact with ministers, civil servants, officers, politicians, bankers, and opinion makers. The extraordinary number of his correspondents testifies to the compelling need he felt to be keyed in with opinions and points of view coming from different quarters and the fundamental importance he attached to it. Those

³ For instance, Keynes wrote to Robertson: “I certainly date all my emancipation from the discussion between us which preceded your *Banking Policy and the Price Level*” (Keynes to Robertson, 13 December 1936, CWK XIV: 94). And he wrote of Kahn that “he is a marvellous critic and suggester and improver – there never was anyone in the history of the world to whom it was so helpful to submit one’s stuff” (Keynes to Joan Robinson, 29 March 1934, CWK XIII: 422). On the collaboration with Kahn, see Marcuzzo 2002; on the collaboration with Robertson, see Sanfilippo 2005.

to be convinced, like those by whom he was convinced, were the well-intentioned and well-disposed, since he held that a particular state of mind was a prerequisite for persuasion to be successful.

In the preface to *Essays in Persuasion* (1931), Keynes attributed his failure in influencing “the course of events in time” to the “overwhelming weight of contemporary sentiment and opinion” (CWK IX: xvii). In the aftermath of the First World War, he compared the advice and unheeded premonitions contained in those essays to “the croakings of a Cassandra”, emitted by someone who is “desperately anxious to convince his audience in time” (CWK IX: xviii).

In this chapter, I address the question of just how adept Keynes was at tuning in to “contemporary sentiment and opinion” and convincing his opponents when he was personally engaged in steering the wheel of history. I will look, in particular, into Keynes’s success in reaping the fruits of persuasion as a negotiator in his missions to the United States in the 1940s, when he bore the responsibility of protecting his country’s interests and shaping the new economic order emerging from the ruins of the Second World War while being confronted with the power of conflicting interests and the clash of cultures. In section 2, I give a brief overview of the purpose and scope of Keynes’s missions to the United States; in section 3, I attempt an assessment of his achievements and shortcomings in the light of the literature; in section 4, I take a closer look at three of Keynes’s *tours de force* in the art of persuasion, drawing some tentative conclusions in the final section.

2. Keynes’s Six Treasury Missions

Keynes carried out six missions to the United States on behalf of the British Treasury between May 1941 and March 1946 (Table 4.1); they add up to a year of his life – now coming to an end – spent outside his usual space and *milieu* whose boundaries were Cambridge, London, and Tilton.

Keynes had joined the Treasury in June 1940, in an unofficial position; he simply had a room there, was available for consultation, and drew no salary. In the autumn of 1940, Great Britain was facing its first dramatic ordeal: France had fallen, Britain was fighting the war alone, and the country’s reserves were rapidly falling. Orders were placed for aircraft and tanks from the United States, although the British Treasury had no financial resources left to pay for them. It was only with the re-election of Franklin Roosevelt in November and his announcement two weeks later that he was prepared to offer American aid to the British that the “worst financial perils” (Harrod 1951: 504) seemed to be over. This marked the

beginning of Anglo-American reciprocal involvement in financing the Second World War effort, in which Keynes played a major role.

Table 4.1. Keynes's Six Missions to the United States

I.	May–July 1941
II.	September–October 1943
III.	June–August 1944
IV.	October–December 1944
V.	September–December 1945
VI.	March 1946

In the first mission, between May and July 1941, Keynes was to assist the British Treasury in application of the Lend-Lease Act, the US program providing supplies to Britain “not in exchange for money but acknowledged by some ‘consideration’ to be negotiated later” (Moggridge 1992: 652). Keynes was to assist in resolving some of the issues related to the scope and application of Lend-Lease, such as the financing of expenditures already incurred by Great Britain before 1941 and the liquidation of British assets overseas, which the Americans insisted upon as a condition for aid. In fact, the main purpose of Keynes's mission was to secure American financial help to increase Britain's reserves, which by then had slumped to a critical level.⁴

In the second mission, between September and October 1943, Keynes was entrusted with the task of preliminary discussions on what was known as Article VII of the Lend-Lease agreement, that is, the terms (“consideration”) under which aid was being given. The conditions required by the Americans amounted to Britain giving up her imperial preference system, in force of which the reciprocal tariff concessions between Britain and the Dominions implied *de facto* discrimination against products of countries outside the British Empire.

The third mission, between June and August 1944, was intended to finalize the criteria for the establishment of the International Monetary Fund and the International Bank for Reconstruction and Development, and to link these criteria with principles to be incorporated in a commercial treaty that would see an end to both the imperial preference and the US tariff systems. The Bretton Woods Conference (1–22 July), with 730

⁴ Keynes's own arguments were set out in a memorandum of 27 October 1940, drawn to assist British Treasury official Frederick Philipps in preparation for his visit to Washington (CWK XXIII: 13–26).

delegates from 44 countries (Skidelsky 2000: 446) witnessing the keen confrontation between the British and the American views, was the major arena for these antagonistic events.

In the fourth mission, between October and December 1944, Keynes's task was to negotiate an extension of Lend-Lease for the period between the collapse of Germany and the end of the Japanese war, known as Stage II. At stake, too, was Britain's plan to resume its basic export activities in order to boost its reserves; to this, the State Department was opposed, and it renewed its assault on imperial discrimination against American trade interests.

In the fifth mission, between September and December 1945, Keynes led the British delegation to negotiate the loan Britain desperately needed, given that Lend-Lease had been abruptly suspended as a result of Japan's surrender in August. The post-war international scenario involved negotiating financial and commercial arrangements for Great Britain and its relationship with both the United States and the Empire.

During the sixth mission, in March 1946, Keynes was involved in the final details of the design of the International Monetary Fund and the World Bank, whose inaugural meeting was held in Savannah, Georgia, and where, again, he did his best to oppose the American approach to the location and governance of the two institutions. Keynes died four weeks after he returned to Britain, on 21 April.

Keynes's negotiating skills and abilities during his Treasury missions to the United States have been scrutinized in the literature under various aspects⁵ and with diverging conclusions; the overall assessment by Keynes's two major biographers are a striking example of these differences.

According to Skidelsky: "Keynes could never understand that American and British interests were not identical, attributing differences to deficiencies in the American political system, and thus *over relying on logic and eloquence* to overcome them" (Skidelsky 2000: 117; emphasis added). The point being made is that Keynes's logic and eloquence were powerless, since British and American interests could not be reconciled, and, indeed, his reliance on the art of persuasion actually impaired his negotiating capability.

On the other hand, Moggridge, while stressing that, on overseas issues, Keynes "became the dominant force in the Treasury, determining grand strategy and a high proportion of the tactics" (Moggridge 1992: 663), does not arrive at the same conclusions as Skidelsky. His only critical remark

⁵ Notably, Harrod 1951; Moggridge 1992; Skidelsky 2000; DeLong 2002; and Pressnell 2003.

refers to the unfortunate negotiation on the 1945 loan, but, unlike Skidelsky,⁶ he places greater blame on the Treasury than on Keynes.⁷ Pressnell (2003: 603), for his part, argues that, in 1945, due to “his possible overconfidence”, Keynes “underestimated the determination of the Americans”.⁸

In the next section, we briefly review Keynes’s successes and failures during these six missions, not so much to measure his negotiating skills as to delineate the background necessary for evaluation of his strategy of persuasion.

3. Envoy or Negotiator?

Lionel Robbins, who joined Keynes on three of the US missions, wrote: “He was not always a good *negotiator* [...]. But as an *envoy* he was supreme” (quoted in Skidelsky 2000: 110). According to the *Oxford Dictionary*, an envoy is “a messenger, especially one sent on a special mission”, while a negotiator is “someone who confers in order to come to an agreement”. Robbins’s distinction seems, therefore, to suggest that Keynes showed greater ability in voicing the British point of view than in sealing agreements favouring British interests. Robbins’s position appears closer to Skidelsky’s than to Moggridge’s, and it prompts a closer examination of Keynes’s behaviour during these six missions.

As we have seen, the purpose of the first mission was to make Britain not entirely dependent on Lend-Lease but to grant it financial and economic freedom of action; the means to achieve this was to increase the level of its gold and dollar reserves without stripping it of much of its foreign assets. On 16 May 1941, Keynes presented his plan, whereby the US Treasury was to refund Great Britain one-third of the advances already paid on contracts outstanding before Lend-Lease and to employ Lend-

⁶ “[Keynes] held fast to the illusion that what Britain deserved could be made to happen and [...] infected the labour government with his optimism” (Skidelsky 2000: 386).

⁷ “London had also made a serious tactical mistake in not including commercial specialists in the original team, although they had attached a Board of Trade official to the team at the last moment. [...] Keynes saw trade and aid as being linked but thought that they could be kept separate in the initial stages of financial talks” (Moggridge 1992: 802).

⁸ “Keynes’s grand scheme depended on first securing a financial deal, and he was confident of being able to handle commercial policy, if it arose, in general terms; much later, perhaps a trade official or two, even a team, might join the negotiations” (Pressnell 2003: 683).

Lease to eliminate Britain's current deficit with the United States. The proposal was firmly rejected by the US Secretary of State, Henry Morgenthau, and Keynes was forced to change strategy; thus, while still endeavouring to put as many US imports as possible on Lend-Lease, he proposed a commercial loan against collateral of British-owned activities. The US Treasury accepted, on the condition that it receive a daily report on the Bank of England's level of reserves, which were not allowed to rise above a given figure.

As far as "consideration" was concerned, Keynes was confronted with two opposite views of what the United States should get in exchange for Lend-Lease: The US Treasury, by controlling Britain's reserves, aimed to render the country financially dependent on the United States; the State Department, on the other hand, aimed to dismantle the imperial preference system.⁹

Keynes had initially presented a draft in which reference was made to reducing trade barriers and trade discrimination in pursuit of a "free and healthy" flow of trade (CWK XXIII: 128–40), but it was vetoed in London by the Chancellor of the Exchequer, Kinsley Woods. Keynes then reluctantly drafted a second proposal, following Churchill's and Woods' guidelines, in which Britain's post-war commitments to changing its trade policy were deliberately left vague and undefined (CWK XIII: 162–65). Eventually, the initiative was taken by the State Department, which produced a draft in which Article VII invoked measures that "shall provide against discrimination in either the United States of America or the United Kingdom against the importation of any produce originating in the other country" (CWK XXIII: 174). Against Keynes's protestation that no trade concessions should be made before the financial arrangements were cleared, the door was thus thrown wide open to American control over Britain's balance of payments.

Discussion of Article VII was the core issue of Keynes's second mission, which, in fact, revolved around the future of the international monetary system. Keynes went to America with the hope of reaching a compromise between Harry White's plan (Stabilization Fund) and his own (Clearing Union), which were simultaneously published in Washington and New York on 7 April 1943. Each was the product of different visions of the banking function of the new institution and expressions of the contrasting interests of the United States and Great Britain.¹⁰ Most of the

⁹ On the vital importance of the United States gaining access to British-controlled markets, see De Cecco 1979.

¹⁰ According to DeLong (2002: 160), "When Keynes disagreed with White, he usually lost the point because of the greater power of the United States. [...] But

negotiations were conducted in a series of eight meetings of the Anglo-American delegations in September 1943, and the balance turned out to be very much on the side of the US proposals, which eventually prevailed. Skidelsky argues that, in those meetings, “the British proposed, the Americans disposed” (2000: 310), while Moggridge maintains that those discussions were “fruitful”, since, “of points where there was an Anglo-American difference, six were solved, while another seven would be solved in the months that followed” (Moggridge 1992: 728).¹¹ The Joint Statement of Experts, signed in Washington on 13 October 1943, embodied the agreement that had been so laboriously reached. On 23 May 1944, Keynes defended it in the House of Lords.

The third mission was almost entirely taken up with the preparation for and subsequent proceedings of the Bretton Woods Conference. Keynes, as usual, was bargaining hard to get the Americans to agree with the British point of view over the delicate issues of post-war sterling convertibility and of eligibility for and terms of borrowing from the international bank. Once more, the results were mixed.

About the conference, Kahn aptly wrote:

An appreciation of the development of Keynes’s attitude presents the difficulty that while Keynes was obviously fighting a rearguard action, constantly being forced to yield ground to the Americans, he was claiming from time to time that his concessions on points to which he had attached importance were not after all of serious consequence. He was terrified of failing to secure agreement with the Americans, and, at the same time, he had to maintain the *morale* of the U.K. Delegation, of officials and Ministers in London, of the Bank of England – and of himself.

(Kahn 1976: 14)

compared to the common view of the institutions to be built and of the goals to be accomplished, the differences between Keynes and White, while important, are orders of magnitude less important than the broad areas on which they agreed”. Skidelsky (2000: 253) takes the opposite view, going so far as to suggest that White was a Soviet spy who “wanted to cripple Britain in order to clear the ground for a post-war American-Soviet alliance”. The evidence of the charges against White has been questioned by Boughton (2001).

¹¹ Points agreed upon were the form of the ultimate statement, the size of the International Monetary Fund, the scarce currency clause, the mechanisms for altering the gold value of the units of account (Unitas), withdrawals from the fund, and selection of the currencies to be drawn from the fund. Points still to be agreed upon were the size of the initial gold subscriptions to the fund, its role in the event of exchange rate changes and in members’ capital account transactions, terms of repurchase of a member’s own currency, and the monetization of Unitas.

The Final Act, which Keynes came to accept on the last day of the conference, was to be ratified by the governments involved. It was obvious that alterations would have been almost impossible to make. As Moggridge points out, “The only alternative to rejecting the whole agreement was to join the new institutions and seek an amendment or an interpretation from the Executive Directors, after the organisation came into operation” (1992: 748). How to persuade Parliament and how to pave the way to “interpretations” favourable to his vision of the working of the fund became one of Keynes’s main concerns in the following months.

The central issue in the fourth mission was the checks America was imposing on Britain’s gold and foreign exchange reserves, which the UK was intent on holding against the sterling balances of various countries (mainly India and the Middle East) accumulating in London as a result of the heavy military expenses incurred by Britain in those parts of the world. As Keynes was at pains to explain to Morgenthau: “For five years we, and we alone, have been responsible for practically the whole cash outgoings for the war over the vast territories from North Africa to Burma” (CWK XXIII: 166).

The United States insisted that, if British reserves rose above a given level, it was proof that Lend-Lease was excessive. Keynes’s position, on the contrary, was that an increase in dollar reserves resulting from US financial help was the only way to offset the growth of the sterling liabilities accumulated.

The fifth mission was undoubtedly a dramatic experience that took a heavy toll on Keynes’s health and well-being. The Lend-Lease program had been cancelled a fortnight before, after Japan’s surrender, and it was really a case of going back to Washington begging for help. The strategy envisaged by Keynes for this goal was based on points and principles set out in a memorandum of 18 March 1945. The Americans were to be persuaded to share, as an act of justice, the burden of war sacrifices disproportionately incurred by Great Britain.¹² An American grant in the form of a “free gift” would allow Britain to return to normal peace conditions in production and consumption and would ease its way into multilateralism in international trade and payments. Without financial aid by the United States – the direst prospect, which Keynes dubbed

¹² “It is only by a more comprehensive settlement, which attempts to offer everyone what is reasonable, and so far as we can make it, fair, that the financial consequences of the war can be liquidated. This is the aim, namely, that as between the partners to the war, its financial consequences, in so far as they affect future economic intercourse between them, should be so far as possible liquidated” (CWK XXIV: 291–92).

Starvation Corner – Great Britain would plunge into severe economic recession and rationing, and it would be forced to rely on commercial and financial bilateralism with the same countries with which it had incurred a huge level of indebtedness.¹³ The middle ground, which Keynes dubbed Temptation, was a loan on more or less commercial terms, which would have, however, placed a crippling burden on Great Britain, preventing it from fully exploiting the gains from free trade and full employment policies.¹⁴ However, the reasons for rejecting Temptation went beyond Britain's ability to pay, since, in Keynes's view, it was "not as the result of some statistical calculation about what we may be able to manage, that the mind revolts from accepting the counsels of Temptation. The fundamental reasons for rejection are incommensurable in terms of cash" (CWK XXIV: 278). It was a matter of principles and of preservation of Britain's financial independence and hegemony in the post-war international order.

By the end of November 1945, the negotiations had come to a dead end, with Whitehall resisting those concessions that Keynes himself had originally advised rejecting but now no longer could be. At the last minute, the British Government decided to send A.T.K. Grant¹⁵ and E. Bridges¹⁶ to carry out what eventually amounted to capitulation to the terms imposed by the US delegation. It was left to Keynes to defend the loan and the Bretton Woods agreements in the House of Lords on 18 December 1945, in a speech that Skidelsky describes as "the most courageous and skilful public speech of his life" (2000: 448).

The last mission was the shortest – less than four weeks – during which Keynes again had to give in to the American delegation on many important institutional features of the fund and the bank, such as its location, governance, and even remuneration of its appointed managers and directors. According to Kahn, "The Savannah Conference [...] had in a brutal manner revealed – especially [...] to Keynes – that the Americans were not going to prove so easy to deal with as, over a short phase of a few

¹³ "A policy of economic isolationism and of economic rupture with the United States and Canada (and with a large part of the rest of the world also) could only be practicable if we had regained the financial reserves we have lost, and if we were prepared to live for several years after the war with rigid domestic controls and strict rationing of consumption, and with an organisation of foreign trade after the Russian model" (CWK XXIV: 256).

¹⁴ "We cannot be sure of shouldering such a burden with success, and we might find ourselves in a chronic condition of having to make humiliating and embarrassing pleas for mercy and postponement" (CWK XXIV: 278).

¹⁵ An economist at the Treasury.

¹⁶ The Permanent Secretary of the Treasury.

months, Keynes may conceivably have become lulled into believing” (Kahn 1976: 9).

When it came to reporting to the Chancellor of the Exchequer the results of his last mission, Keynes was apparently bewildered as to what to do. According to Kahn, he was persuaded to change the tone, if not the substance, of the memorandum he had drafted on the *Queen Mary* on the return trip, by two travelling companions¹⁷ who were scared that it “might have resulted in a revolt in favour of withdrawal by the UK from the IMF” (Kahn 1976: 28). Moggridge disputes the importance of the episode, arguing that it simply shows that, while Keynes “was obviously disappointed with the results of Savannah” (Moggridge 1992: 834), he would never have suggested withdrawal. Skidelsky dismisses Kahn’s interpretation, that “anything Keynes wrote was bound to have a decisive effect on the policy of the British government” as “symptomatic of the veneration in which Keynes was held for many years after his death, which was far from being complete while he was still alive” (Skidelsky 2000: 469).

There is no consensus in the literature on how far and to what extent Keynes’s art of persuasion was constrained by circumstances or, rather, was jeopardized by his scarce negotiating skills. It is a matter that cannot be settled by any evidence, but we can nevertheless try to get a better idea of his style of rhetoric and strategy of communication by looking more closely into three of the most striking of his *tours de force* in persuasion.

4. The Rhetoric of Responsibility

If judged against the declared objectives, Keynes’s missions can hardly be described as successful. However, in all contemporary records, as in most of the subsequent literature, Keynes is portrayed as a master in eloquence¹⁸ and superb in his overall and far-reaching vision, with a full

¹⁷ George Bolton of the Bank of England and Ernest Rowe-Dutton of the Treasury.

¹⁸ See, for instance, Harrod (1951: 496): “In the course of years he had made himself a supreme master of debate. That fine command of prose, manifested in his writings, was no less evident in oral discussion. [...] As a master of words Keynes was without peer in Washington or Bretton Woods”. See also Robert Bryce (1988: 150): “In 1944 [Keynes] came twice to Ottawa as a representative of the British Treasury [...] he was a very skilled negotiator, a very persuasive and fluent expositor; indeed his exercise of fluency and charm was so powerful that the Canadian ministers preferred to take their decisions *after* they had met with him rather than while they were still under his spell.” I am grateful to Robert Dimand for drawing my attention to Bryce’s account.

understanding of the minute details and implications of the arrangements that were being negotiated and displaying real rhetorical skill in pleading the British case, although there are reservations about his handling of the American opponents. Moreover, when it came to persuading the Treasury or the House of Lords to accept what he had negotiated, there is almost unanimous consensus that Keynes's art was unrivalled.

Keynes's eloquence won the day in three notable instances: defending the Joint Statement by Experts¹⁹ with the Treasury²⁰ and in Parliament in April–May 1944; bringing Whitehall around to his strategy for Stage III in a memorandum of March–May 1945,²¹ and pledging acceptance of the loan and the Bretton Woods Agreement in the House of Lords in December 1946.

The logic of his defence of the Joint Statement rested on the necessary connection between Britain's domestic policy and its external position: the importance of avoiding the interwar experience with beggar-my-neighbour measures, which had resulted in unemployment and disruption of trade. As Keynes stated in the House of Lords on 16 May 1944:

The policy of full employment to which His Majesty's Government are committed would be immensely easier in practice if we could have a concerted policy with other countries, and if we all moved altogether and did not allow what is sometimes called the export of unemployment from one country to another.

(CWK XXVI: 4–5)

In his speech to the House of Lords of 23 May 1944, Keynes's rhetorical pledge to the Lords to endorse the Statement of Experts rested on two pillars. The first was to argue that it was a case of

a voluntary undertaking, genuinely offered in the spirit both of a good neighbour and, I should add, of enlightened self-interest, not to allow a repetition of a chain of events which between the wars did more than any

¹⁹ *Joint Statement by Experts on the Establishment of an International Monetary Fund* (CWK XXV: 379–92 and Appendix 4). The version signed in Washington on 13 October 1943, went through seven drafts (Editorial note, *ibid.*, 392).

²⁰ *Explanatory Notes by United Kingdom Experts on the Proposal for an International Monetary Fund* (CWK XXV: 437–442). Keynes justified the need for these in a letter to the Chancellor of the Exchequer: “The experts, who are publicly stated to have *agreed* this paper as being satisfactory, are surely entitled to offer some explanation why” (J.M. Keynes to J. Anderson, 16 April 1944, in CWK XXV: 436).

²¹ Overseas Financial Policy in Stage III (CWK XXIV: 256–95).

other single factor to destroy the world's economic balance and to prepare a seed-bed for foul growths.

(CWK XXVI: 4)

The second, and more important, pillar was that there was no viable choice:

What alternative is open to us which gives comparable aid, or better, more hopeful opportunities for the future? I have considerable confidence that something very like this plan will be in fact adopted, if only on account of the plain demerits of the alternative of rejection.

(CWK XXVI: 15)

A year later, addressing again the alternatives facing Great Britain in the post-war period in a memorandum written between March and May 1945, Keynes bluntly depicted a bleak scenario, in which he insisted that an appeal to justice was the first and the best option. His approach was commented upon extensively by Bob Brand,²² who was at the time one of Keynes's most important interlocutors and correspondents on Anglo-American relationships. Brand's reaction and Keynes's response are worth quoting at length:

What you propose the United States should do, is, taken as a whole, something like Justice to us, and that as for the part we assign to the United States we ask it from her not because it is just but because she is rich and well able to do so, and because it is very much in her interest. My point in saying all this is that I doubt whether it will be wise to stress to the American people that what we propose is not only Justice to us, but for them.

(R.H. Brand to J.M. Keynes, 5 April 1945, in CWK XXIV: 307)

To which Keynes reacted,

You must remember that the present document is primarily addressed to critical members of the Cabinet here and is putting the case primarily from our point of view. I contemplate that a different sort of paper would be prepared and used for U.S.A. [...] One should give more attention to emphasising the advantages to U.S.A. than I have given in this paper as compared with the advantage to the UK.

(J.M. Keynes to R.H. Brand, 24 April 1945, in CWK XXIV: 312–3)

Here Keynes's persuasion strategy relied on two levers. The first was selecting the arguments that would appeal to the self-interest of the party

²² At the time, Treasury representative in Washington.

that he was addressing at the time. The second was searching for a framework in which each side's interests could be made to coincide as parts of the same general interest. As he explained to Wilfrid Eady,²³ who was also unconvinced of Keynes's strategy in negotiating post-war American financial assistance: "[The appeal to Justice] is wider conception about the way in which the financial consequences of the war should be liquidated" (J.M. Keynes to W. Eady, 13 June 1945, in CWK XXIV: 360).

Keynes appeal to justice to persuade the Americans to share the burden of the cost of the war was a rhetorical device to present as a mutual interest that which, in the minds of the two parties involved in defending the US and UK viewpoints, appeared to be conflicting interests. The substantive reason for putting forward his proposal of a "free gift" from the United States stemmed, however, from a firm belief that settling the British external debt by the application of a strictly commercial point of view, as the Americans were determined to do, would have a worldwide deflationary effect. This position is similar to the one Keynes took with regard to German reparations in the aftermath of the First World War. Ironically, the Marshall Plan, which the Americans introduced immediately after the end of the war to inflate the European economy, was a Keynesian remedy; but, to American politicians, it had the virtue of not being geared to British interests. The literature is divided on this issue. Skidelsky endorses the view that Keynes was fighting against the US intention to destroy Britain as a great power, while American economic historian Brad DeLong rejects the idea that Britain could ever have remained a great power, no matter how much Keynes might have been able to extract in terms of financial aid from the United States.²⁴

Finally, we come to Keynes's address to the House of Lords on 18 December 1945 (CWK XXIV: 605–28), delivered barely twenty-four hours after he had disembarked from the *Queen Elizabeth* at Southampton to seek Parliamentary ratification of the loan and the Bretton Woods

²³ Since 1942, the Second Secretary of the British Treasury.

²⁴ "Britain imported seventeen billion pounds' worth of goods during World War II, of which America paid in Lend-Lease and in post-World War II Marshall Plan and MSA [Mutual Security Agency] aid for seven billion. Had America paid for all seventeen billion pounds, then Britain would have had an extra ten billion pounds' worth of overseas assets at the end of World War II. At a 5 percent real return on overseas investments, this would have boosted post-World War II British GNP by 4 percent. Would Britain with 4 percent more GNP have been a truly 'great' power, the post-World War II leader of the western alliance? No. [...] It would have had no more workers and factories more productive than Britain did in reality" (DeLong 2002: 162).

Agreements. Here his persuasion strategy was geared to appealing to a sense of responsibility. While conceding “to his regret that this is not an interest free loan,” Keynes expressed sympathy for his American negotiators and their difficulties, arguing that relying on a sterling area bloc was not a viable alternative to Anglo-American collaboration, and he enumerated all of the advantages that multilateralism held for Great Britain in terms of short-term recovery and long-term growth.

However, he also recanted his strategy of appealing to a sense of justice, devised in March 1944:

In no phase of human experience does the past operate so directly and arithmetically as we were trying to contend. Men’s sympathies and less calculated impulses are drawn from their memories of comradeship, but their contemporary acts are generally directed towards influencing the future and not towards pensioning the past. [...] We soon discovered, therefore, that it was not our past performance or our present weakness but our future prospects of recovery and our intention to face the world boldly that we had to demonstrate.

(CWK XXIV: 610–11)

Skidelsky argues that “the *magic* of Keynes’s words is still potent more than half a century later” (Skidelsky 2000: 449; emphasis added). Moggridge describes Keynes’s speech as “a *powerful*, frank description of the arrangements” (Moggridge 1992: 816; emphasis added). The choice of adjectives reflects the contrasting evaluation of his two biographers, the former stressing the eloquence, the latter the logic, of Keynes’s defence of his own doings. Harrod (1951: 618) takes a middle course, describing the address as a “graceful and persuasive speech [...] compounded of penetrating analysis, tact and sagacity.”

Once again, we see here different evaluations of Keynes’s role in the various agreements that sealed the final act in Anglo-American financial negotiations during the Second World War. Skidelsky, together with Robbins, takes the view that Keynes was more a “master of words” (in Harrod’s definition) than a successful negotiator, while Moggridge, together with Kahn, presents him as painfully aware that this was the best the British could achieve against the Americans’ refusal to consider the alternative option.

5. Conclusions

Success in persuasion requires the thorough grasp of public feelings and sentiment which, by the end of his life, Keynes had fully acquired, above all in the context of his intellectual and political *milieu*. In the 1940s he

was no longer – as in the 1920s – an outcast in the political scene. He was the most influential advisor to the Treasury, a director of the Bank of England, and a member of the House of Lords addressing his peers. He knew the right strings to pull, and he pulled them. It was not only his prestige at stake but the post-war economic and political system he had helped design.

By assuming responsibility for what had been achieved, Keynes forced Parliament and the Government – by then accustomed to the idea that he was one of them – to share in it. A similar point was made by Harrod in his comment on the speech of 18 December 1945, when he asked what lay behind Keynes's success in persuasion in this particular instance: "The speech in December 1945 was excellent, but no more excellent than his utterances for twenty-seven long years. Were the mighty ones in the land merely indifferent to wisdom, or were they incapable of detecting it, except when it was adorned with a coronet?" (Harrod 1951: 618).

Keynes's appeal to overcome self-interest as the sole guide to action and to transcend situations that take the form of zero-sum games was made in the context of both internal and external economic problems. As far as full-employment policy was concerned, he endeavoured to persuade his "countrymen and the world at large to change their traditional doctrines and, by taking better thought, to remove the curse of unemployment" (CWK XXVI: 16). In the case of post-war international economics, he fought to persuade governments that "only by a more comprehensive settlement, which attempts to offer everyone what is reasonable, and so far as we can make it fair, [can] the financial consequences of the war [...] be liquidated" (CWK XXIV: 291–2).

His persuasion strategy was not always successful, but to the extent that it was – as the experience of post-war employment policies and international financial stability in the post-war years has amply shown it to have been – much was gained in terms of creation and allocation of resources.

Robbins (1932) claimed that arguments pertaining to ethics and political philosophy should be banned from economics. His message was that, while moral sciences deal with what ought to be, economics is concerned with what is. Keynes fought for the opposite view, for investigation "into problems which seek to bring about defined or desired end states (or solutions) and clarify values" (see Marcuzzo 2004). His message was to change the environment within which individuals operate, so that moral and rational motives become the spring of action of the collective as a whole (CWK XVII: 453). The role of persuasion was precisely that of inducing behaviour to conform to goals that were

attainable only by moving beyond individualistic motivation or utilitarian calculation. Zero-sum games were more the results of a vision of society and of a conception of economics based on the principle of scarcity and self-interest than on a true representation of reality.

As Skidelsky aptly put it: “[H]is intuition persuades, not so much because it corresponds to our own intuition of reality, but because we are very susceptible to persuasive language. To the extent that we are persuaded, and modify our behaviour, there is a new reality” (1992: 415).

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PART II

CAMBRIDGE ARCHIVES

CHAPTER FIVE

THE CAMBRIDGE KEYNESIANS: KAHN, J. ROBINSON AND KALDOR A PERSPECTIVE FROM THE ARCHIVES

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1. Introduction

Richard Kahn, Joan Robinson and Nicholas Kaldor were economists who played an essential role in disseminating and winning approval for the ideas of Keynes. They all had special relations with him and were in constant touch with his ideas. From the post-war period until the end of the 1970s all three, in their own ways, had fundamental roles in shaping the Cambridge that attracted students and scholars in great number from all over the world. They epitomized what is generally understood as the Keynesians, at least as far as Cambridge, UK, was concerned.

R.F. Kahn was Keynes's "favourite pupil",¹ his main support in the making of the *General Theory*, collaborator in King's College administration and literary executor.

J.V. Robinson was regarded by some as the icon of the legitimate Keynesians against the bastard progeny of Keynes, populariser and proselytiser, contender in the capital controversy and champion of eclecticism in her reliance on Marx, Kalecki and Sraffa in opposing the

* We are grateful for copyright permission granted by Professor D. Papineau (Kahn papers), the Provost and the Fellows of King's College, Cambridge (Joan Robinson papers) and A.P. Thirlwall (Kaldor papers). We are also grateful to F. Stewart, Kaldor's daughter, for granting permission to quote from her speech at her father's memorial.

¹ As Keynes himself described him in a letter to his wife Lydia in 1928 (see Marcuzzo 2002a: 422).

neoclassical theory, originating an approach which is known as post-Keynesian.

N. Kaldor, a latecomer in Keynes's circle as a convert from the Austrian school and the London School of Economics, was an original thinker in many pure and applied fields; he is best known for his growth and distribution models, the policy counselling he provided to Labour governments at home and in developing countries and his fierce opposition to Monetarism and Margaret Thatcher's economic policies.

This chapter deals with the archives of their papers, which are examined here from three standpoints. First, we use the headings of their catalogues to give some biographical and bibliographical information about each author, in order to place those headings in the context of personal, professional and academic life. Generally speaking, archives are an important source for reconstructing intellectual biographies, perhaps less fascinating but certainly more reliable than personal recollections.

Secondly, we review the unpublished writings, signalling those that are, in our view, most interesting.

Finally, we examine the correspondence, taking into consideration a sample which we find particularly noteworthy.

Here we do not dwell extensively on the letters between Kaldor, Robinson and Kahn that are extant in their archives, and which we have examined elsewhere (Marcuzzo and Rosselli 2005).² These economists were not only heavily, emotionally dependent on Keynes's approval, support and friendship, but also aquiver among themselves with tensions and powerful interpersonal dynamics, love, esteem, hatred and jealousy playing their part.³

After examining each author's papers separately (sections 2, 3 and 4), we raise some methodological issues related to archives as a source for the history of economic thought and, as conclusions, we offer a few remarks prompted by the present authors' experience of work on these archives (section 5).

² The book presents the results of research on the correspondence between Keynes, Kahn, J. Robinson, Robertson, Harrod, Sraffa, Pigou, Kaldor, Shove and Hayek from 1907 to 1946, with detailed tables of the extant letters. This chapter draws heavily on it.

³ These issues are examined, as far as Kaldor and Robinson are concerned, in King (1998) and, in relation to Robinson and Kahn, in Rosselli (2005a).

2. Papers and Correspondence of R.F. Kahn

2.1. The Catalogue

Kahn's papers are preserved in the Modern Archives of King's College, Cambridge;⁴ the headings of the catalogue are given in Table 5.1.

Table 5.1. Kahn's papers

1.	Published Writings
2.	Unpublished Writings
3.	King's College: Student, Fellow, Bursar, Keynes's Trustee
4.	Cambridge University, Faculty of Economics and Politics: Chairman, Appointments Committee Member, Examiner, Supervisor of Research Students, Lecturer
5.	National Institute of Economic and Social Research
6.	Ministry of Supply
7.	Board of Trade
8.	Organization for European Economic Cooperation
9.	United Nations Food and Agriculture Organization
10.	Department of Economic Affairs
11.	House of Lords
12.	RFK's Subject Files
13.	Correspondence
14.	Drafts, Off-Prints and Books by Others
15.	Finances
16.	Joan Robinson
17.	Rachel Rostas
18.	Diaries and Address Books
19.	Holidays
20.	Health
21.	Religion, Israel
22.	Clubs
23.	Photographs
24.	Family papers

⁴ A very few items from his personal papers, together with most of his library and collection of off-prints, are at present conserved at the Asahikawa University, Hokkaido, Japan.

Kahn, albeit highly influential in all major theoretical events in Cambridge economics, did not publish much, but his contributions are landmarks in the economics of the twentieth century. To name but a few, we have the articles on the Multiplier (Kahn 1931), Duopoly (Kahn 1937) and Liquidity Preference (Kahn 1954), the *Evidence to the Radcliffe Committee* (Kahn 1958), *Exercises in the Analysis of Growth* (Kahn 1959) and the article on the rate of interest (Kahn 1971). The complete bibliography can be found in Marcuzzo (1989) and, on the basis of comparison, we identify the unpublished writings, which will be examined in the next section.

Kahn's involvement with King's College dates back to the late 1920s when, as a student, he spent three years preparing for the Natural Science Tripos and one year for the Economics Tripos. After his election to a Fellowship (1930), he served as Second Bursar (since 1935), acting Bursar during Keynes's illness in 1937–38, then First Bursar (1946–51) and, after Keynes's death in 1946, Keynes's Trustee.

Kahn was also active and influential in the Faculty of Economics, where he started as lecturer in 1933, finally becoming Professor in 1951. He chaired many committees and masterminded academic activities and appointments. He was involved in the establishment of the Cambridge Research scheme, funded by the National Institute of Economic and Social Research, originally set up in 1938 also in order to provide Kalecki with a job in Cambridge.

At the outbreak of the war, Kahn found a post at the Board of Trade, where he was involved in the point-rationing scheme to curb consumption and free resources for the war effort; he then acted as Deputy Director of the Middle East Supply Centre in Cairo, where he was given many administrative duties. Subsequently he moved to the Ministry of Supply, where he started working on the Buffer Stocks of raw materials scheme and issues related to post-war organization of the economic institutions.

As from the late 1940s he worked for a number of international organizations (OEEC, UNCTAD and FAO) and the British Labour governments, for which he designed wage and income policy schemes at the Department of Economic Affairs. He received a life peerage in 1965. In the House of Lords he intervened on economic matters and, when the Tories came back to power, he was strenuous in his indictment of monetarism and Mrs Thatcher's government.

Since the early 1930s he had invested in shares, bonds and commodities with alternating fortunes. He was in charge of the finances of friends and relatives and devoted a considerable part of his time to the management of their savings. Unlike Keynes and Piero Sraffa, with whom

he frequently discussed financial matters, he made only modest gains and did not die rich.

He was an enthusiastic mountaineer and even late in life would still spend most summers in the Alps. He was a careful planner in all matters, holidays included. He never married and always remained very close to his family, particularly his sisters, supporting them financially and emotionally.

An important aspect of his life was his strong Jewish identity, even when he gave up religious practice, as testified by the fact that he wanted to be buried in the Jewish part of the Cambridge cemetery.⁵

2.2. Unpublished Writings

The unpublished writings are to be found not only in the relevant section of the catalogue, but are scattered among many other files.

Kahn never published a book, excluding the fellowship dissertation which appeared in Italian in 1983 (Kahn 1983) and in English in 1989 (Kahn 1989). However, at least twice he did plan to write a book, one at the beginning of his career, on the basis of his Dissertation and bearing the same name, *The Economics of the Short Period*. One draft is extant, with annotations and related material, amounting to roughly 300 pages. Of the planned eleven chapters, according to the index, chapters 1, 3 and 4 remained unwritten, while 7, 9 and 10 are seemingly unfinished. The draft was most certainly written in the last quarter of 1932 (Marcuzzo 1996: 20).⁶ Part of chapter 7 merged into “The Marginal Principle” which was an article Kahn submitted to F.W. Taussig in 1933 for publication in the *Quarterly Journal of Economics* and which, having been rejected, still remains unpublished in English.⁷

The second projected book goes back to the 1950s, when Kahn started a monograph on buffer stocks which was to consist of 11 chapters according to an index which might have been drafted in the early 1950s. In this work Kahn advocated the establishment of an international buffer stock agency to prevent price fluctuations of primary commodities. The agency was to be managed by experts so that price determination of raw materials, unlike under the quota system, would be “not a matter of

⁵ Biographical information about Kahn’s life and work can be found in Kahn (1984), Harcourt (1991), Pasinetti (1991).

⁶ Joan Robinson wrote to Kahn on 24 January 1933: “I have read your book thus currently. It’s certainly a very impressive work. I hope you are going to let me help you with polishing it up” (RFK 13/90/1/75).

⁷ The Italian version is in Kahn (1999).

bargaining strength, but of judgement based on scientific enquiry and expert experience” (chapter IV in RFK 2/12.3).⁸

In fact, in 1952 he began writing a series of letters to friends and colleagues in order to collect bibliographical material and statistics on buffer stocks. Six chapters were probably written between 1953 and 1954, and four of them are preserved in a file labelled by Kahn himself as the “Long version.” A shorter, but complete version of the book was put together with the help of Joan Robinson, most likely in 1956–7. She drew on material prepared by Kahn, but made several additions and excisions. In the early summer of 1957 this shorter version may have been sent to Gerda Blau, who was an officer at FAO in Rome and a close friend of Kahn and Robinson and had been closely following Kahn’s progress with his book.⁹ Kahn kept up his work on the book, discussed it in correspondence with James Meade in 1958, and in 1959 still believed he could finish it by the end of the summer of that year (RFK 2/14). Unfortunately this was not to be so, but two papers on buffer stocks of tin and sugar, the former written for FAO and the latter for the International Sugar Council, are extant (Kahn 1988: 47).

The result of all this delay is that Kahn’s only published book is in fact a collection of his essays (Kahn 1972). He planned to bring out a second one and drafted various tables of contents, which are extant.

Moreover, among Kahn’s unpublished writings, there are a few memoranda, papers and comments, mainly related to his activities as policy advisor and economic expert for various organizations and governments. On the academic side, there is a paper on Sraffa written in 1980, which is a – not particularly successful – attempt to build a steady state growth model based on *Production of Commodities by Means of Commodities* (RFK 2/20).

Of more historical interest are various sets of lecture notes dating to the early 1930s, together with conference papers extending well into the 1980s. Finally, there is the text of a long interview on his life and work,

⁸ The papers of the three authors examined in the text are held in the Modern Archives of King’s College, Cambridge and referred to as the RFK, JVR, NK papers. The numbers given are those of the corresponding classmark of the file or the document.

⁹ Contrary to the sequence presented in Palma (1994), the shorter version is not the older one. We know from the correspondence between R.F. Kahn and Gerda Blau, preserved in the FAO Archives in Rome, that chapters III, IV, V and VI were ready by October 1953 and that chapters I and VIII were added subsequently. The excessive length of the projected book led Gerda Blau to ask Kahn for a shorter version, which is probably the one prepared with the help of Joan Robinson and preserved in RFK 2/12.3.

which was given to one of the authors of this paper, published in a small book in Italian (Kahn 1988), but still unpublished in English.

2.3. Correspondence

Of Kahn's major correspondents, Keynes and Joan Robinson certainly had the lion's share, correspondence with the former amounting to 602 letters and with the latter to over 1300. The women he was personally involved with come second, followed by relatives, colleagues and a few acquaintances. As far as the economists are concerned, the earlier correspondents include: V. Edelberg,¹⁰ R.F. Harrod, H. Johnson, N. Kaldor, N. Laski, J. Meade, A.C. Pigou, D.H. Robertson, E.A.G. Robinson and G.S. Shove. Of the later period, correspondents include P. Garegnani, B. Ohlin, L. Pasinetti, R. Skidelsky and R. Solow.

The distribution of the extant correspondence, as expected, is heavily skewed towards recent years, the bulk of it dating to the late 1970s and, above all, the 1980s, with the exception of the colleagues mentioned above, family and lovers.

It is impossible to provide here a detailed account of the correspondence preserved in Kahn's archive, its interest ranging from the biographical to the scientific; we must perforce limit ourselves to a sample. We chose a group of 37 letters that Kahn wrote to Joan Robinson during his visit to the United States between late 1932 and April 1933,¹¹ selecting them from the hundreds kept in Kahn's archive as offering a good example of the wealth of information that might be drawn from perusal of his correspondence. First, these letters give us a picture of academic life in the USA in the early 1930s as seen through the eyes-of a Cambridge don. They point up the lack of communication that still existed in those years between the academic worlds on the two sides of the Atlantic and reveal the gulf in styles and approaches to research and teaching. Secondly, they show how economic theory, as developed in the USA at the time, was perceived by a born and bred Keynesian economist like Kahn. Thirdly, they give us insight into the personalities of the two correspondents and their closest interlocutors.

Kahn's letters are a series of long accounts dispatched from Chicago, where he spent a few weeks; from Harvard, where he was guest of Taussig and Schumpeter; and from New York, where he spent the last month of his

¹⁰ Victor G. Edelberg, economist, studied at the LSE under Robbins' supervision. In the 1930s he wrote on the Ricardian theory of profit and on capital theory.

¹¹ For unknown reasons these letters are kept in Kahn's rather than in Joan Robinson's archive.

visit. His first impression of the United States was not favourable, and changed little during his stay. Of the academic life he endorsed neither the research organization nor the teaching methods. He felt that too much money went on providing professors with secretaries and research assistants (engaged in what he considered a futile pursuit of data) and too little on creating an environment that would in both spirit and substance favour the exchange of ideas and a serene quest for knowledge.

Above, all it was the didactic methods that failed to convince him, the students having no opportunity for discussion with their professors apart from the seminar Schumpeter held with his pupils at Harvard. As he wrote to Joan Robinson at the end of his visit to Chicago: “But what annoys me is the isolation in which most of these young men do their economics. Several of them have complained to me of the difficulty of working under such asocial conditions” (24 January 1933, RFK 13/90/1/75). There was no forum for debate like the Keynes Club or the Marshall Society in Cambridge, and everyone seemed utterly to ignore his neighbour:

Take, for instance, the case of Chamberlin’s book. He has been working on it for at least six years. And yet I can find nobody who can give me the inkling of an idea of what the book is going to contain. I have no doubt that Chamberlin is well endowed with “research assistants” (I shall come to that phase of this lunatic asylum later.) But that is the whole point. The pursuit of learning is regarded as a business, to be discussed with underlings at “conferences”, rather than as a social art which pervades one’s whole life.

(17 February 1933, RFK 13/90/1/132–4)

None of the economists encountered made much of an impression on him, particularly in Chicago, where he went no further than a handshake with Irving Fisher. Knight aroused his sympathy: “Knight is friendly in a forbidding kind of way. He is very disgruntled with economic theory – in fact he is disgruntled about most things but his cynicism is of the pleasanter variety” (15 January 1933, quoted in Rosselli 2005a: 265).

Viner and Schultz initially impressed Kahn favourably with their intelligence, but appalled him with the attitude they took to Cambridge, UK:

Both Schultz and Viner try to be extremely contemptuous of Cambridge [...] Viner is also very proud of not having read more than a few passages from the Treatise. And he has never finished the Symposium (but this does not prevent his telling me how surprised they were when it came out. They had been doing that kind of thing for years).

(15 January 1933, RFK 13/90/1/44–51)

At Harvard Frank Taussig, then 72 years old, made the greatest impression on him, while of the younger generation – practically his own – it was the recently arrived Leontieff who appeared to him as “very definitely a man to watch” (15 February 1933, quoted in Rosselli 2005a: 265).

His impressions in New York were far more agreeable: “Wesley Mitchell had a lunch party for me at Columbia, and he struck me this time as a rather superior type of American professor, genial and moderately human! [Harold] Hotelling is a perfect dear which is just as it should be” (23–24 March 1933, quoted in Rosselli 2005a: 266).

At the same time, the state of economic science and in particular of monetary theory seemed hopeless to Kahn, fresh from the Circus debates and involved in the work on the future *General Theory* of Keynes. While deflation was reaching its worst, the only remedies proposed were balancing the budget and reducing the gold content of the dollar. After attending a conference, he wrote:

My God, it was nearly all the most doctrinaire sort of nonsense about how hard it is to inflate the currency and what about reducing the gold value of the dollar (without any suggestion that its rate of exchange was what mattered). If a business man were to deliver the best of those papers to the Marshall Society we should feel we had been sold a pup. These people are living in the Dark Ages. If I were not a coward I should there and then have made up my mind to devote the rest of my life to a crusade against the Quantity Theory. In no other way could I do more to better the lot of mankind.

(8 January 1933, RFK 13/90/1/36–40)

And he bitterly reached the conclusion: “why is it that the only people in the world with whom conversation on so-called monetary subjects conforms to the most rudimentary canons of common sense all live in Cambridge?” (10 February 1933, RFK 13/90/1/105–7).

Greater satisfaction came from his meetings with business people who he kept interviewing in the hope of finding a solution to the problem of price determination:

My experience so far has been extremely limited, but I am now absolutely convinced that every business man is at a kink (a pretty kinky kink too) on his demand curve, or thinks he is. This creates a quandary. It is quite true that it does not pay either to raise or lower the price. But what on earth determines the position of the kink? This is going to be my main theoretical problem.

(27 February 1933, quoted in Rosselli 2005a: 266)

As these few passages show, this American correspondence testifies to the seminal role of Kahn at two cornerstones of Cambridge economics: the fight against the Quantity Theory of Money and generalization of the Marshallian method.

3. Papers and Correspondence of J.V. Robinson

3.1. The Catalogue

Joan Robinson's papers are preserved in the Modern Archives of King's College, Cambridge; the headings of the catalogue are given in Table 5.2.

Table 5.2. Robinson's papers

1.	Books and contributions to books, 1920–79
2.	Articles published or intended for publication, 1932–81
3.	Oral presentations, 1941–81
4.	Papers concerning work in progress, 1936–73
5.	Juvenilia, 1914–23
6.	Notes from the work of others, 1961–74
7.	Correspondence, including unpublished papers written by others, 1922–80
8.	Miscellaneous memorandums, 1930–80
9.	Address books and loose notes of Addresses, 1945–80
10.	Engagement diaries, 1963–83
11.	Field notebooks and travel journals, 1945–79
12.	Other travel records, 1945–65
13.	Photographs, 1930–87
14.	Pieces published by others, 1926–78
15.	Reviews of Joan Robinson's writings and career, 1932–86
16.	Printed copies of Joan Robinson's publications, 1925–82

Unlike Kahn, Joan Robinson was an exceptionally prolific writer – her published writings amounting to over 440 items (Marcuzzo 2002b) – and left very little unpublished. Unlike the other two economists examined here, she lived an almost entirely academic life, mainly in Cambridge. She held no administrative positions in the University, nor in her colleges, Girton and Newnham, where she became Fellow only in 1965, when she was made Professor, having been appointed Lecturer in 1937 and Reader in 1949.

In the latter part of her life she became a world-wide traveller, making frequent visits to India, China, the former Soviet Union, Cuba and Canada.

The catalogue of her papers reflects these activities, drafts and original typescripts of some of her published works forming the bulk. Of her entire production, however, the extant material amounts to only a small fraction. As far as her first and most famous book, the *Economics of Imperfect Competition* (Robinson 1933), is concerned, extant is a draft of the Introduction (JVR i/3.3), which was probably kept because it contains Keynes's suggestions and corrections. Nothing is left of her other books (Robinson 1937; 1942; 1956; 1960; 1962a; 1962b; 1966; 1970; 1971; Robinson and Eatwell, 1973). Of the published articles, it is mostly the material relative to the recent ones (after 1970) that has been preserved. Oral tradition has it that on her retirement, when she was obliged to leave her office in the Cambridge Faculty Building, she destroyed almost all her papers.

3.2. Unpublished Writings

Most of the extant material in this section of the catalogue consists of notes for talks and lectures, either academic or for the general public. Noteworthy is the text of a lecture on Jevons, written in 1942 for the "wartime Circus" (according to Joan Robinson's inscription), delivered most certainly on Pigou's suggestion that all Faculty members were to give a lecture on a selected economist.¹² The lecture draws heavily on Keynes's biographical essay on Jevons (Keynes 1972) as far as his life and activities are concerned. However, unlike Keynes, under the influence of her recent reading of Marx Joan Robinson stressed how Jevons broke away from the tradition of British political economy by introducing a radical change in his approach not only to the theory of value, but to economics itself. She wrote:

Jevons was wrong in supposing that he had found a new answer to the problems of political economy. He had not found a new answer. He had altered the question. For Ricardo the problem of the theory of value was

¹² Kaldor recalls that after the outbreak of the war "Pigou, as Chairman of the Economics Faculty, arranged for a special series of lectures to be given by Cambridge economists entitled 'The Great Economists', each of which was assigned to a different economist who would be considered as a 'specialist' on that person or subject [...] Joan Robinson was asked to lecture on Jevons, a less happy choice; [...] and it was the obvious choice to ask Piero [Sraffa] (as editor of Ricardo's Collected Writings) to speak on Ricardo" (NK 3/138). These recollections are contained in an interview that Kaldor gave to one of the authors of this chapter and which was published in Italian (Kaldor 1986).

subsidiary to the problem of distribution [...] Jevons is not concerned with this problem, he is interested in what determines relative prices.

(JVR iii/2/6–7)

Three other manuscripts are worth mentioning. First, there are the notes for a talk to undergraduates on Nazism in Europe, dated 17 November 1941 in Robinson's handwriting (JVR iii/1). The talk, given in one of the worst moments of the war, is a hymn to the ideal of liberalism, interpreted as "the ideal of human equality, of the rule of law, of government by reason and compromise instead of by force and fear". Confronted by Hitler's tyranny, she spurs the audience to "raise the standards of freedom and justice" and free Britain from the "anonymous, silent, bloodless tyranny of money and privilege [which] denies education to the mass of our own people". Given the circumstances, the talk is full of passion, but admirably devoid of any hint of jingoism. Robinson invites her audience to learn and understand: "We must learn to feel, when we hear these tales of horror, not 'this is how Germans behave', but this is what human nature can become".

Secondly, there is a set of lecture notes, entitled *Short Period Model*, probably drafted in the early 1960s. These are written in a sort of shorthand form, to sketch out the content of the lectures. The first part looks at the differences between (a) family economy, (b) planned economy, and (c) capitalist economy as far as the forces beyond accumulation and the pace of growth are concerned. In a capitalist economy the crucial role is played by technical progress. The last part of the lectures deals with the short period, described as a "snap-shot of [an] economy at a moment of time", and analyses the effects of changes in investment, consumption, prices and money wages on the system (JVR iii/8).

Also extant is a much later set of notes on the Cambridge Tradition, which was the basis for a course she was persuaded to give in Cambridge after her retirement, in the Michaelmas Terms 1976–81. The number of lectures apparently varied from year to year, but the archive yields only the notes for four of these lectures. In JVR iii/16.1, 16.3, 16.4 there is an analysis of Marshall's thought, deemed "necessary to understand Keynes". The Marshallian heritage in Keynes is seen as the "sense of an actual economy moving through historical time" and the "short period idea". She wrote that "For Marshall [short period is the] time it takes to get back to normal profits after an unforeseen change. For Keynes [it is a] given position with plant, organization of industry, utilization function". Marshall comes out better in comparison with Walras because Marshall lacks a model with "transactors with endowments and in which all

questions are treated as ‘maximizing under restraints’. Marshall gives a view of the economy [with] family business, workers, banking system, international trade”. The other lectures are on “The rate of profit” (JVR iii/2, 5) and “The Classical revival” (JVR iii/6, 7).

3.3. Correspondence

There are about 490 correspondents listed in this section of the catalogue, although most of them are represented by only one extant letter. It is always hard to judge how much of a correspondence has been preserved by chance or as the result of deliberate choice. If the latter was the case with Joan Robinson, the variety of authors whose letters she thought worth keeping would confirm what a younger friend of the latter part of her life once wrote: “Joan’s gift for friendship was perhaps where she found her greatest freedom and pleasure, cutting right across class, culture, age” (Narasimhan 1983: 217). In her archive we find letters from all over the world, from women friends from school days at St. Pauls’ School for Girls in London or student years in Cambridge, who kept in touch long after. The major correspondents, besides friends, family and relatives, include: S. Adler,¹³ H.R. Altounyan,¹⁴ D.G. Champernowne, M.H. Dobb, R.F. Harrod, F.A. Hayek, J.R. Hicks, R.F. Kahn, N. Kaldor, M. Kalecki, J.M. Keynes, A. Lerner, A.C. Pigou, K. Raj,¹⁵ P.A. Samuelson, G. Shove, J. Schumpeter, and P. Sraffa.

Here again we chose to focus on a small fraction of the correspondence preserved in her archive: the letters that Gerald Shove wrote to Joan Robinson in the years 1931–33 of the making of *The Economics of Imperfect Competition*. Their interest derives from the paucity of information we have on the scientific contribution of Gerald Shove, whose role as teacher and researcher in the true Marshallian tradition was acknowledged by many in Cambridge (Kahn 1987; Austin Robinson 1977). However, we have scant evidence to assess his role in the Cambridge debates, since Shove wrote much, but published little, as Kahn wrote in his obituary (Kahn 1947), and all his papers were destroyed after his death, as he had wished.

¹³ Salomon Adler, economist, expert on China, translated into English some of Mao’s writings.

¹⁴ Ernest H. Riddal Altounyan, poet and doctor who practised in Syria; his most famous poem was dedicated to Lawrence of Arabia.

¹⁵ Kakkadan Nandanath Raj, economist, set up the Delhi School of Economics and the Centre for Development Studies in Trivandrum. He published on the Indian and other Asian economies.

When Joan Robinson began writing *The Economics of Imperfect Competition* in May 1931, Shove had already spent several years working on a book which was to expand on the Marshallian ideas on value and costs (Rosselli 2005b). For two years, from 1931 to 1933, the 17 letters that Shove sent to Robinson show him living in fear that her book and the lecture course that Robinson was working on might anticipate his ideas, depriving them of their originality.

The ideas Shove was afraid that might be “stolen” from him by Robinson are listed in a letter he sent her – the first of those extant – on 24 October 1931:

Dear Joan, from conversation with Kahn, I gathered that, though the theorems in your book about monopoly are new and original, a good deal of the fundamental apparatus or line of approach (e.g. the treatment of “costs” and “rents”, heterogeneity of resources, Increasing Returns and Diminishing Returns and so on) is derived, directly or indirectly, from suggestions which I have put forward at various times in teaching, lectures etc.

I am delighted that any of my ideas or methods of exposition should bear fruit in this way, but may I say that I think some acknowledgment should be made of their source?

(24 October 1931, quoted in Rosselli 2005b: 357)

Since then, any step forward made by Joan Robinson in her career and in the development of her ideas aroused Shove’s discontent, anxiety and somewhat aggressive reactions. When Joan Robinson gave her first course of lectures on Monopoly, Shove informed Robinson of the topics he intended to expound in his course in the following term and inquired whether she had already dealt with any of them (2 December 1931, JVR vii/412/8–9 and 48–50). Shove was particularly anxious that Robinson might invade one of his favourite fields of teaching, diminishing returns, and particularly those that originate from the heterogeneity of factors of production. It seems that Robinson assuaged Shove’s anxiety by telling him that her treatment differed in many respects.

In June 1932, Shove heard from Kahn that Robinson was revising the first draft of her book extensively and this, again, made him suspicious (9 June 1932, JVR vii/412/20–21). This time Robinson reacted angrily to his insinuations. We do not have her letters (she must have sent three at least) but the tone of Shove’s replies (17, 23 and 24 June 1932, JVR vii/412/22–29) becomes ever humbler and more apologetic. After further reassurances that Robinson had not changed her mind significantly, he concluded that “so far as I am concerned the incident is dead, buried, bricked-over,

forgotten and (if there is anything to forgive) forgiven” (23 June 1932, JVR vii/412/26–8). However, he was still convinced that Robinson had wronged him when she began “preparing for publication and lectures a treatment of Diminishing Returns very similar to mine” (17 June 1932, quoted in Rosselli 2005b: 361), without consulting him. At any rate, he was aware of his own limitations and declined Robinson’s offer to wait for the publication of his book: “It is very kind and generous of you to offer to postpone publication, but please don’t. I shall probably never publish and anyhow I should hate to keep you back” (ibid.).

Again, when Joan Robinson published her first article (Robinson 1932) where she first presented the long- and short-run equilibrium conditions for a firm under imperfect competition, Shove interpreted the article as an attack against himself and convinced Keynes to publish a comment that, as usual, he gave to the printer at the very last moment. Robinson was given a few hours and very little space to write a rejoinder; Shove, having put her into such a difficult situation, wrote her a letter immediately afterwards full of sympathy for what she had to go through (16 February 1933, JVR vii/412/34).

The same schizophrenic attitude, between aggression and admiration, was to be found a few months later when Shove at last brought himself to read *The Economics of Imperfect Competition*. He wrote her a letter of congratulations, but when the review came out it proved not exactly enthusiastic. It was her “technique” that he did not like, her recourse to heroic assumptions in order to make the problems manageable in mathematical terms: “an essay in geometrical political economy” (Shove 1933: 660), as he called the book.

Can we tell from these letters that Shove’s grievances had some grounds? He was right in seeing many overlaps between their fields of research, both having an interest in classifying the possible sources of increasing costs and factor productivity, but the similarities end here. They may have reached the same results, but along completely different routes.

4. Papers and Correspondence of N. Kaldor

4.1. The Catalogue

Nicholas Kaldor’s papers, too, are preserved in the Modern Archives of King’s College, Cambridge; the headings of the catalogue are given in Table 5.3.

Unlike the other two economists examined here, Kaldor was not a born and bred Cambridge economist. He was raised in Budapest, got his

education in economics at the London School of Economics, and was converted to the Keynesian Revolution after the publication of the *General Theory*. He was consultant to the governments and institutions of various countries, deeply involved in British politics and active in the Labour Party, serving on several parliamentary committees. He joined the economics faculty of Cambridge University in 1949, when he also became Fellow of King's College. Over the post-war years he was economic and taxation adviser to several governments, central banks and the Economic Commission for Latin America. (The "country files" in his papers cover 26 countries, from "America" to "Venezuela", that invited Kaldor over the years or required his services as consultant.) He became Professor in 1966 and received a life peerage in 1974.

Kaldor's papers were sorted by his literary executor, who organized the material and used it to write his biography (Thirlwall 1987). The first heading comprises writings both by Kaldor and by various other authors, in chronological order, dating from his early work for the Hungarian press in the 1920s. When extant, the correspondence concerning each individual work is included in its folder. Texts of his speeches to the House of Lords are kept in this section.

Table 5.3. Kaldor's papers

1.	Writings, 1912–89
2.	Lectures and conference papers, 1932–86
3.	Correspondence, 1926–86
4.	Academic career, 1925–79
5.	National Institute of Economic and Social Research, 1937–46
6.	United States Strategic Bombing Survey, British Bombing Survey Unit, 1939–73
7.	United Nations, 1945–71
8.	Royal Commission on the Taxation of Profits and Income, 1910–55
9.	Economic Advice to foreign governments, 1947–82
10.	Economic Advice to Labour governments, 1961–78
11.	Labour Party, Fabian Society, Trade Union Congress, 1959–86
12.	Press cuttings, 1960–86
13.	Diaries, 1963–76
14.	Personal, family and financial papers, 1940–86

Kaldor's main contributions in the field of pure economic theory are his models of economic growth (Kaldor 1957; 1961; Kaldor and Mirlees 1962) and his theory of income distribution, which followed up the thread

of a Keynesian idea, namely that profit earners have a higher propensity to save than wage earners (Kaldor 1956).¹⁶ In his most famous book (Kaldor 1955), which developed out of his work on the Royal Commission on the Taxation of Profits and Income, Kaldor proposed to tax people not on the basis of their income, but rather on that of their expenditure, since by taxing income savers are taxed twice, both on present income and accumulated savings.

Kaldor was a prolific writer both in his academic output – there are nine volumes of his collected economic papers (Kaldor 1960–89) – and in his contributions to the political debates on economic issues, advising governments and the general public alike.

He was blessed with a large family and many friends. In her speech at his memorial service in King’s College chapel, the eldest of his four daughters, Frances Stewart, who also was an economist, traced a vivid picture of how Kaldor came across and what he stood for:

He was completely and explicitly on the side of the underdog, the have-nots, the underprivileged in society, and this was a fundamental motivating force in all his work, both in economic theory and as adviser and commentator on economic policy. He believed that much of conventional economics – neo-classical theory and monetarism was a huge cover-up, an elaborate and well concealed structure for preserving privilege and downgrading the underprivileged. A consistent theme in his own economics, right from the 1930s, was to show up the logical fallacies and empirical falsities of orthodox economics, and to develop alternative theories which would be in the interests of a fairer system. Examples abound: his work on the Beveridge Report, on taxation, on an international commodity-backed reserve currency, on monetarism and so on. Where perhaps he was a bit naive – in the light of experience – was in believing that it only needed logic to convince the privileged to give up their privileges. But logic is a first step, and there he has left us a rich heritage, not only in ideas but also in shared commitment among colleagues and students (not to mention family) to detect the phoney, to uncover true motives, and to develop alternatives.

(Stewart 1987: 2–3)

4.2. Unpublished Writings

Since a complete bibliography including articles for newspapers and magazines is not available,¹⁷ it is hard to sort out the unpublished papers

¹⁶ On Kaldor’s life and activities, see also Pasinetti (1979) and Targetti (1992).

¹⁷ Targetti’s bibliography, which builds upon Thirlwall (1987), by admission of the author does not include Kaldor’s “numerous letters to *The Times* (which over the

from those preserved in the archives. The sheer quantity of manuscripts, memos, reports and lecture notes is truly formidable, and we cannot do justice to it in the present chapter. Here again we will take a sample – mainly lecture notes – hoping to entice others to delve further into the material.

Luckily, the lecture notes for his courses at the LSE and in Cambridge have been preserved as from 1932–3, when Kaldor joined the staff of the former, starting from the courses on “The Theory of Costs”, later renamed “The Theory of Production”, on “Advanced Economic Theory (Statics and Dynamics)” and on “Capital and Interest”, as well as – when the LSE moved to Cambridge – the courses on “Theory of Employment”, “Value and Distribution”, “Economic Dynamics” and “Growth”. These provide interesting material to place the development of Kaldor’s ideas in their context. Here we shall take a look at three different sets of lectures.

The first that we consider here were given in Harvard in 1935. They are on imperfect competition (NK 2/32/2–10) and determinateness of equilibrium (NK 1/8/60–9), and show how little of Keynesian thinking he had taken with him to America. The lectures deal with the issues examined in his articles (Kaldor 1934; 1935), such as the difference between market and individual “imagined” demand curves and the assumptions necessary for a state of equilibrium to be attained. They show Kaldor already at some distance from the Hayekian influence, but still embedded in the general equilibrium approach and yet to become acquainted with the new developments in Keynesian macroeconomics.

Secondly, we take the notes for the lecture on Ricardo (NK 2/23/1–28) which Kaldor agreed to give in substitution of Sraffa who withdrew from the task at the last minute, incurring Pigou’s disapproval. According to Kaldor, Sraffa gave him enough material “for an entire course on Ricardo, not for one single lecture” (Kaldor 1986: 50, *our translation*). The influence exerted by Sraffa can be detected in at least two areas. The first is the importance attached to the labour theory of value, interpreted as an instrument to determine relative prices and therefore liable to be considered as “a necessary preliminary to the main problem: the problem of distribution”. Secondly, Ricardo is described as a “practical man”, concerned with real issues – such as inflation, depreciation of the exchange and the high price of corn – unlike the traditional picture of Ricardo the abstract thinker. The lecture has a distinctly Kaldorian flavour in the emphasis given to the importance of modelling in economics – in

thirty years between 1932 and 1986 numbered around 260)” and his articles for many newspapers, excluding those re-published in his collections of essays (Targetti 1992: 363).

which Ricardo is said to excel – and to the role given to the rate of profit in determining the pace of accumulation.

Thirdly, a manuscript entitled “The General Theory and the open economy”, for a lecture scheduled for 14 November 1986, which Kaldor could not deliver since he died on 30 September 1986. Here we find an interesting formulation of the principle of effective demand in terms of the capital account and income account of a balance sheet, and the distinction between decisions “arising out of the contemplation of a capital account, and those arising from his [the individual’s] preferences and decisions on income accounts”. Keynes’s principle of effective demand is seen as implying a two-stage process: “autonomous decisions to increase expenditure on currently produced goods on capital account, and second, consequential changes in incomes and hence on expenditures on income account” (NK 2/170/1–14).

4.3. Correspondence

Thirty-five boxes of correspondence are extant; files 1–121 are catalogued individually and in alphabetical sequence, while files 122–46 are linked to countries. The catalogue substantially preserves the filing system followed by Kaldor himself. One file labelled “economics, important letters” contains the correspondence with L. Robbins, F. von Hayek, J. Hicks, F.W. Taussig, M. Allen, F. Machlup and P. Rosenstein-Rodan and goes back to the 1930s. Some of these correspondents also appear later, above all J. Hicks, with whom exchange was continuous over the years, while with Robbins and Hayek relations deteriorated dramatically in the late 1930s. The Cambridge economists figure prominently among the correspondents (Pigou, Robertson, Joan Robinson, Kahn). Of the other British economists, some (Ralph Hawtrey, James Meade, Roy Harrod) merit files of their own, while others are included in the numerous files having to do with the academic and political activities of Kaldor.

Our choice is once again constrained, and by no means easy. We focus here on the issue which saw Kaldor – in the span of just a few years, 1934–36 – opposing Hayek and drawing closer to the Cambridge stance against *laissez-faire* and the perfect competition assumption.

In 1935 Hayek and Kaldor exchanged two typescript notes in a controversy on imperfect competition, prompted by Kaldor’s article in *Economica* in 1935, in which Kaldor argued that strategic interactions between firms in an environment of free entry, market imperfection and increasing returns might lead to “technical wastage”, since the productivity of factors “will be less than it would be if each producer produced a

smaller number of products and a large proportion of total output of each” (Kaldor 1935: 49). Not unsurprisingly, Hayek contested Kaldor’s approach; in a letter of February 1935 he wrote:

Mr. Kaldor’s argument and indeed the argument of all planners, is however, that competition left to itself will not secure the degree of standardisation which in some sense can be regarded as desirable, and that in consequence compulsory standardisation might increase economic welfare in general.

(Quoted in Ingraio and Ranchetti 2005: 400)

Hayek criticizes Kaldor’s contention, maintaining that it is based on two arguments, the first of which is fallacious, while the second is based on particular assumptions which do not seem likely to occur frequently in practice. The fallacy would lie in neglecting consumers’ preferences and the taste of the public for variety. The mere fact that, because of the advantages of large-scale production, more could be produced of each product if their variety were less, does not imply that the increased production is equivalent to increased welfare.

Since information is in any case incomplete, there can be no presumption that the public authorities have an advantage over private agents, and so there is no guarantee that they will do better by intervening in an attempt to reduce the social cost of excess capacity.

In his answer to Hayek’s criticism, Kaldor argues that “A case against ‘laissez faire’ is not necessarily a case in favour of ‘planning’” (NK 2/3/81–6), and reiterates the argument that “reducing the number of produced ‘varieties’ does not imply a substantial standardisation and loss of variety [...] since brands or varieties do not necessarily bring about true product differentiation” (quoted in Ingraio and Ranchetti 2005: 401). He casts doubt on the degree of foresightedness required by entrepreneurs to produce the output most profitable in the long run, so that freedom of entry into any trade does not lead to the beneficial results for the consumers usually assumed.

Kaldor, like Hicks¹⁸ later on, following Chamberlin’s thread, saw in the imperfect competition “revolution” the need to think in terms of

¹⁸ “I think the problem of imperfect competition is harder, and less important than you do”, wrote John Hicks to Joan Robinson three months after the publication of *The Economics of Imperfect Competition* (15 June 1933, JVR vii/200/1). And he maintained the same point later, when reviewing the matter for his Monopoly article (Hicks, 1935): “I think the real difference between us” – he wrote to her – “is that you are more optimistic than I am about the application of the theory of

general equilibrium and strategic behaviour among firms. In this respect, from the very outset Kaldor was not attuned to Joan Robinson's Marshallian method of partial equilibrium, and this was the focus of their first exchange.

Robinson had praised Kaldor's article on the equilibrium of the firm (29 March 1934, NK 3/5/45–7), a conception that she regarded as crucial to both the Paretian and the Marshallian method. In his reply of 10 April 1934, Kaldor pointed out that the introduction of demand curves for the individual firms in imperfect competition makes the concept of a supply curve of a single industry untenable since "it will not be possible to formulate any functional relationship between price and the amount produced, since a whole series of output can be associated with any particular price" (quoted in Rosselli and Besomi 2005: 314). He reiterates the same critique – which obviously stems from his general equilibrium approach – in his review of Robinson's book in the same year.

However, a few years later, when his shift from the LSE to the Cambridge camp had been accomplished, mainly through his conversion to Keynesian economics, he stood by Robinson against Chamberlin and his article on the differences between his monopolistic and Robinson's imperfect competition.

He wrote to Robinson on 7 October 1937: "I would take the liberty to defend you and Kahn and Pigou as well" (quoted in Rosselli and Besomi 2005: 315). They seem to have shared the view that Chamberlin was "alarmed at finding out the anti *laissez-faire* implications of his own analysis" (quoted in Rosselli and Besomi 2005: 315). Their alliance in the anti-*laissez-faire* battles, which they fought throughout their lives, was definitely sealed.

5. Working in Archives

The widespread interest in working and researching archives that we have seen blossoming among historians of economics and also economists in recent years has already yielded a rich crop of literature, as these Palgrave volumes witness. Perhaps the time is now ripe to assess this activity and measure the value-added it holds for the profession; we offer a small contribution in this direction.

We can start by asking what the main motivations are behind research on the papers of Great Economists of the more or less recent past

imperfect competition, just because you think that theory is simpler than I do" (letter 28 February 1935, JVR vii/200/25). See Marcuzzo and Sanfilippo (2007).

(disregarding here the no less valuable research on the papers of the less famous). To answer this question we need to ascertain whether or not those papers have *already* been used for scholarly investigation. *Prima facie*, it would seem that if indeed they have, then precious little would be left for further research. On the other hand, we are faced with the striking fact that not even the publication of 30 volumes of the *Collected Writings of J.M. Keynes* and three biographies of the man have as yet slowed down the flow of visitors to King's College Modern Archives to peruse his papers. Its former archivist has given a vivid account of the stream of people working on Keynes's papers, their queries and curiosities:

So, installed in the archives, how do these new converts to the delights of documentary research conduct themselves? They make their notes by hand or laptop, which are, depending on the strength or otherwise of their English, succinct precis or laborious transcripts. Their document selection is either methodical or serendipitous; sidetracking diversions may uncover gems. They are reverential, excited (one academic who shall be nameless always speaks of "fondling the files"), or indifferent to the mystique of the original document that bears Keynes's own autograph.

(Cox 1995: 173)

The other case is when research on an author is still in progress and his/her papers are an "unploughed field". Sraffa's papers – to confine ourselves to the Cambridge tradition – are a case in point (Smith 1998). Scholars are lured by the mystery of his life and the scantiness of his publications; his papers promise to make Sraffa more accessible and understandable than he was in person or through his few published writings.

Joan Robinson is a similar case, although she published a lot and left little unpublished. A full-size biography of her still remains to be written, leaving a void in an area of great interest to many of her followers, admirers and critics.

So far we have stressed the role of archives in filling the gaps in our knowledge of the personal and intellectual lives of Great Economists. Undoubtedly no significant biography can be written without spending long hours on documentary research, but what is their value in increasing our grasp of the *theories* of the authors concerned? How are we to answer the critics who view these activities as a sort of antique collecting?

There are, we would suggest, two legitimate answers. First, theories should always be referred to their context. By context we mean the set of questions which framed them, the intellectual interlocutors to whom they were addressed and "the state of the art" at the time of their conception. Papers and correspondence afford insight into the motivations behind the choices of a particular set of questions, assumptions or tools. These are not

always explicitly stated in the published version where the solutions discarded and definitions abandoned are left out. Archives allow us to travel the road towards a theory rather than, as it were, visit the final destination.

In Sraffa's words: "In economic theory the conclusions are sometimes less interesting than the route by which they are reached"¹⁹.

On the other hand, we believe that it should not be encouraged to search archives in the spirit of a "treasure hunt", or in other words in the hope that unpublished papers or unknown letters might unveil the true meaning of a concept or "prove" one interpretation rather than another. These are very rare occurrences and it is, rather, the patient, persistent sometimes unrewarding search for clues and facts which fits our discoveries into the pre-existing knowledge, as in a jigsaw.

Finally there is some educational value in working on archives for an economist, at least once in his/her professional life, to become aware that the road from error to "truth" is a winding one, with many detour and obstructions. Acquaintance with the historical method of investigation is a challenge to faith in the purely scientific nature of economic investigation; history, unlike mathematics, fosters doubts in the search for universal truths in economics.

As far as the three archives which have been presented here are concerned, we may conclude by saying, on the basis of our experience and knowledge of them, which are the promising and still little explored sections.

The correspondence between Kahn and Joan Robinson, and between Kahn and Keynes (almost two thousand letters) appears to us an inexhaustible mine of information on many aspects of Cambridge life and economics, also in relation to the outside world. Moreover, there are the travel notes by Joan Robinson which give us a first-hand account of many countries at the time she visited them. Similarly, it may be well worth researching the "country files" of Kaldor for the material he assembled and produced in his capacity as economic adviser to those countries. To these we would add his memos and preparatory notes written on several occasions during the many years of his political activities. In conclusion, the inheritance of these three great Cambridge economists is treasured in their archives, over and above the material they published.

¹⁹ Letter from Sraffa to Charles P. Blicht, 6 October 1975, in possession of the recipient. We are grateful to Nerio Naldi who kindly gave us a photocopy of this letter.

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CHAPTER SIX

KEYNES AND HIS FAVOURITE PUPIL: THE CORRESPONDENCE BETWEEN KEYNES AND KAHN

MARIA CRISTINA MARCUZZO

1. Introduction

The correspondence between Maynard Keynes and Richard Kahn, as we have it at present, consists of 611 letters, only 68 of which are published in the *Collected Writings* of J.M. Keynes (CWK) (see Table 6.1). In presenting this material I focus on those aspects which may help to clarify the nature and scope of their friendship and collaboration. Inevitably, most biographical elements relate to Kahn rather than Keynes, on whom a vast literature is extant (see Moggridge 1992; Skidelsky 1983; 1992; 2000). It is in fact hoped that this work may also serve as a preliminary study of Richard F. Kahn, “that elusive figure who hides in the preface of Cambridge books”, as Samuelson put it (JVR papers, i/8/1).¹

2. Kahn’s Tripos and Fellowship

We know that Keynes was impressed by Kahn’s qualities from the outset,² when Kahn was a Tripos student and had Keynes as supervisor at King’s.

¹ This sentence can be found in the “Introduction” by J. Robinson to the Italian edition of R.F. Kahn’s *Essays on Employment and Growth* (Kahn 1972) which was published in Italian but not in English. This original is in JVR papers, XI/8.

² For instance, Keynes pencilled an essay by Kahn, dated 4 November 1927, with the comment: “I think you have a real aptitude for Economics” (RFK papers, XI/3). A few months later, on 27 April 1928, he marked another essay with the following words: “Very good – almost a perfect answer” (RFK papers, XI/3). Again, a couple of days later, he wrote to his wife: “Yesterday my favourite pupil

The correspondence between them begins with a letter Keynes sent to Kahn immediately after the Tripos results were known: “My dear Kahn, very warm congratulations that all was, after all, well in the examinations – though, as you know, I expected it” (letter 242, 15 June 1928). To which we have the reply:

Dear Mr. Keynes, [...] the result was certainly a surprise, but I now recognise that I personally was but a minor factor involved in achieving it; and I should like to take this opportunity of thanking you from the bottom of my heart for your part as a major factor.

(letter 240, 17 June 1928)

When, under the influence of Shove and Sraffa, whose lectures he attended together with Joan Robinson, Kahn came to write his Fellowship dissertation, the chosen topic fell outside Keynes’s immediate field of interest.³ In fact, until December 1929 the correspondence with Keynes contains no discussion of topics in the dissertation, but is rather concerned with issues raised by Keynes’s own work, namely the final stage of the writing of the *Treatise of Money*, which was in the early proof stage.

The Dissertation was submitted in December 1929 and the Fellowship duly awarded on 15 March 1930. The next day, Keynes wrote to him: “My dear Kahn, [...] the election went through with ease and certainty, everyone recognising that it was an exceptionally distinguished thesis [...] I have permission to show you the reports on the dissertation” (letter 233, 16 March 1930).

Kahn reacted with characteristic modesty and equally unflinching gratitude towards Keynes, to whom he replied: “Some strong stimulus must have been at work, and I suspect that this originated in the contact which your proofs provided me with the working of your own mind” (letter 269, 16 March 1930).

Kahn wrote me one of the best answers I ever had from a pupil – he *must* get a first class” (JMK papers, PP/45/190/4/46).

³ “Under the influence of Marshall’s *Principles*, I chose *The Economics of the Short Period*. In making my choice I was encouraged by Shove and Piero Sraffa. Keynes happily acquiesced. Neither he nor I had the slightest idea that my work on the short period was later on going to influence the development of Keynes’s own thought. But there are no traces of Keynesian thought in the dissertation itself” (Kahn 1989: x–xi; see Marcuzzo 1994).

3. Drafting the *Treatise*

According to Kahn's later recollections, it was only after the Dissertation was submitted that he was asked by Keynes to help with the *Treatise*.⁴ However, the correspondence shows that since July 1929 he had been assisting Keynes with various matters related to it. In September, he wrote: "I have read the proofs and I have not much to say; but it would take some time to set it out" (letter 236, 29 September 1929, CWK XXIX: 4).⁵ In fact, two months later, when he was just finishing his Dissertation, he managed to send Keynes a list of six general "points" to discuss. We are told by no less an authority than J. Robinson that "Kahn put in a good deal of work in the last stages of Keynes's *Treatise of Money*", although she added "it can be seen from the correspondence that they were both in a great muddle" (JVR papers, i/8/1–2). The discrepancy between Kahn's later statement and the documents at our disposal can easily be accounted for with Kahn's different assessment of the importance of the kind of help he had given Keynes before and after completing work on the Dissertation. Moggridge came up with a very different interpretation: "[Kahn] deliberately (and mistakenly) distanced himself too much from the *Treatise* and thus overly highlighted his own role in the new ideas that were later to emerge" (Moggridge 1992: 532n).

What, it seems to me, does emerge from the correspondence prior to publication of the *Treatise* – much of which Keynes rewrote in 1929 and which was published on 31 October 1930 – is that *before* completion of the Dissertation Keynes engaged Kahn in discussion of problems of monetary theory rather than problems more closely concerning Kahn's work (letter 237, 13 December 1928). It was only *after* completion of the Dissertation that Kahn began to give Keynes suggestions as to how he might develop the theory in other directions (letter 379, 17 December 1929, CWK XIII: 120–21). Thus, it was in "arguing out" rather than drafting the *Treatise* that Kahn was most influential (Marcuzzo 2002b).

4. The Transition from the *Treatise* to the *General Theory*

As is well known, the Circus was a discussion group consisting of James Meade, Joan and Austin Robinson, Piero Sraffa and Richard Kahn; a seminar was also held to which particularly good students were invited.

⁴ "Keynes did not want to divert me from writing my Dissertation, and it was only after December 1929 that he started giving me for comments the proofs of the *Treatise*" (Patinkin and Leith 1977: 148; see also Kahn 1984: 175).

⁵ This partly contradicts what he recalled almost 50 years later.

They met from Michaelmas Term 1930 to May 1931. Much has been written about the influence of the Circus in bringing about the transition from the *Treatise* to the *General Theory*, but there is no consensus in the literature.

One of the crucial elements in the transition – adoption of the theory of aggregate demand and aggregate supply to determine the short period level of prices – was attributed by Keynes to the approach taken by Kahn in his “multiplier article” (CWK VII: 400n), where the level of price is determined by the same forces as the level of output and not by the Quantity of Money. Kahn has argued that Keynes’s long struggle to escape from the Quantity Theory won through only in the transition from the *Treatise* to the *General Theory*, claiming for himself (and the Circus) an important role.⁶

The point stressed by Keynes in the *Treatise* was that determination of the price level of consumption goods is entirely independent of determination of the price level of investment goods. This point was contested by Kahn in a set of letters in 1931 (letter 405, 5 April 1931, CWK XIII: 203–6; letter 380, 17 April 1931, CWK XIII: 206–7; letter 271, 7 May 1931, CWK XIII: 212–13; letter 265, 15 August 1931, CWK XIII: 218–19), when he sought to persuade Keynes to accept the criticism raised also by Robertson, Pigou and Sraffa. Shortly after Kahn’s last letter on the subject, Keynes surrendered (CWK XIII: 225).

Keynes made an important step forward from the *Treatise* in the Harris Foundation lectures given in June 1931. There he adopted a new conception, the aggregate supply curve, which he explicitly attributed to Kahn. The supply curve, Keynes said, “tells you that for a given level of prime profit [i.e. the difference between gross receipts and prime costs] there will be a given level of output” (CWK XIII: 368). The Harris Foundation lectures show Keynes shifting the emphasis from the *Treatise* analysis of aggregate profits as the difference between investment and saving, affecting the level of prices, to Kahn’s short period analysis of aggregate profits as the difference between gross receipts and prime costs, affecting the level of output.

By the end of the summer of 1931 it had become clear to Keynes that the “fundamental equations” approach needed revision and, as a result of

⁶ Keynes cannot have entirely shared the idea of having been for such a long time a believer in the Quantity Theory, since many years afterwards he wrote to him: “I enclose as a specimen the letter I wrote on Christmas Eve, 1917, which is interesting for two reasons – [...] (ii) the fact that even then I was thinking in terms of supply and demand and not of the quantity theory of money!” (letter 83, 27 May 1940).

various difficulties, he decided to postpone the lectures he was to give in the autumn. When he resumed them in spring 1932, he was able to present a “new” argument:

fluctuations of output and employment for a given community over the short period [...] depend almost entirely on the amount of current investment. This [...] is the result of taking account of the probable effect on saving of a *change* in the amount of investment.

(CWK XXIX: 41)

These lectures were attended by Kahn, Austin and Joan Robinson, who presented Keynes with an “alternative” to his proof of the positive relationship between variation in investment and variation in output based on the “method of supply and demand”, as they called it. Keynes’s proof was as follows: an increase in output is equal to an increase in sales receipts (= income); an increase in investment is equal to an increase in sales receipts (= income) *minus* expenditure on consumption; consumption and income are positively correlated, and therefore changes in investment and changes in output have the same sign. The alternative proof was based on the argument that an autonomous increase in investment leads to an increase in the demand for consumption goods. Since by assumption supply conditions are independent of changes in demand, determination of consumption and therefore of income ($= C + I$) is straightforward.⁷

The *General Theory* had begun to take shape.

5. The “American” Correspondence

Kahn sailed to the United States on the R.M.S. “Majestic” on 21 December 1932, on a Rockefeller Fellowship (see Rosselli 2005: 263–6 and Marcuzzo et al. 2005: 302). Cambridge life was not entirely forgotten since he was busy working on the proofs of another major *opus*, *The Economics of Imperfect Competition*, which J. Robinson had been writing since mid-1930 in close consultation with Kahn (see Rosselli 2005: 260).

The correspondence with Keynes shows no traces of his intense involvement with J. Robinson’s book but is entirely occupied with consideration of the American way of life, the academic circles and the

⁷ Keynes took up the alternative “method” in his lectures the following autumn, where we find him using the expression “demand as a whole relatively to supply as a whole” (CWK XXIX: 53; Rymes 1989: 55).

influence of the Quantity Theory of Money on the economic reasoning of most American economists (see letter 259, 7 March 1933).

From the University of Chicago, where he stayed for four weeks, Kahn went on to Toronto and Montreal to give a talk on “Need depression last forever?” and then to Harvard, where he stayed with Schumpeter, and then on again to New York and Washington. “The *Treatise* plays an enormously prominent role wherever I go”, he wrote to Keynes (letter 260, 16 February 1933).

Keynes seemed to have missed his presence in Cambridge a great deal. In March, when he was writing the four articles in *The Times* later published as *The Means to Prosperity*,⁸ worried that Kahn would not be able to read it in advance he wrote to him:

I am now engaged in trying to write out for *The Times* [...] a really detailed, but nevertheless popular, account of the relation between primary and secondary employment. I hope I don't make any bloomers, – I wish you were here to look over my shoulder.

(letter 276, 24 March 1933, CWK XIII: 413)

Then, after the first article was published, he complained: “I was frightfully annoyed about the slip in the first article, which I had to correct in the second – one which would never have occurred if you had been in the neighbourhood” (letter 251, 16 March 1933).

6. The Keynesian Revolution

When Kahn came back in April 1933, Keynes was well into the process of writing his new book. Unfortunately, the correspondence of 1933 contains no comments by Kahn on Keynes's autumn 1933 lectures, nor on the fragments of versions of the *General Theory* that came to light in Tilton's “laundry hamper” (CWK XXIX: 63–110), on the basis of which most commentators date the conception of the new theory, with enunciation of the principle of effective demand. The role of profits had changed, since the level of output is now made to depend on prospective rather than actual magnitude; moreover the adjusting mechanism is dressed in a particular form: “output is [...] pushed to the point at which the prospective selling price no longer exceeds the marginal variable cost” (CWK XXIX: 98). Keynes's use of marginal analysis – totally absent in

⁸ “The American edition of the pamphlet [...] also incorporated material from Keynes's article ‘The Multiplier’ which appeared in the *New Statesman* of 1 April 1933” (Editorial note, CWK XIII: 412).

the *Treatise* – is another instance of Kahn’s influence in presentation of Keynes’s new ideas. In accepting the “method” of supply and demand suggested by Kahn, Keynes was progressively driven towards the marginal approach, which indeed is the language in which important parts of the *General Theory* are written (Marcuzzo 2002a).

By the end of 1933, Kahn’s role now seems more that of a mentor than a pupil, as the following passage from a letter by Keynes to Lydia dated 15 October 1933 reveals: “Alexander [the name Lydia gave Kahn to distinguish him from another Fellow of King’s, Richard Braithwaite] has just been to give his criticism on the latest version of my three chapters – I got off much lighter than usual” (CWK XXIX: 62).

The collaboration continued steady during the early months of 1934. On February 1934 he wrote to Lydia: “Alexander has proved to me that “my important discovery” last week is all a mistake” (CWK XXIX: 120). Again, on 20 March, Kahn spotted another blunder (CWK XXIX: 120). However, after “a stiff week’s supervision” from Kahn, Keynes reported enthusiastically: “He is a marvellous critic and suggester and improver – there never was anyone in the history of the world to whom it was so helpful to submit one’s stuff” (letter 1788 from JMK to JVR, 29 March 1934).⁹

Eventually, Keynes was able to send Kahn “[the] beautiful and important (I think) precise definition of what is meant by effective demand” (letter 249, 13 April 1934, CWK XIII: 422).¹⁰

By that summer of 1934, when Kahn spent most of his time at Tilton, “the main lines of the *General Theory of Employment Interest and Money* had become clear” (Robinson [1977] 1979: 185). Unfortunately, not many letters survive for this period, but the following passage from a letter by Keynes to Kahn, is revealing: “I am getting towards the end of the re-writing which you led me into [...]” (letter 224, 27 September 1934, CWK XIII: 485).

⁹ However, just two weeks before Kahn had written to Keynes: “I am feeling very distressed that I have not found time to read very much of your book. I seem this term to have got myself completely bogged. It is a rotten way to treat you (and the subject which you, at least, are so anxious to ‘do full justice’ to)” (letter 283, 14 March 1934).

¹⁰ “The fundamental assumption of the classical theory, ‘supply creates its own demand’, is that $OW = OP$ [W = marginal prime cost of production when output is O ; P = expected selling price of this output; OP = effective demand] *whatever* the level of O [...]. On *my* theory, $OW \neq OP$, for *all* values of O , and entrepreneurs have to choose a value of O for which it *is* equal; – otherwise the equality of price and marginal prime cost is infringed. This is the real starting point of everything” (letter 249, 13 April 1934, CWK XIII: 422–3).

More material is available for 1935, mainly related to the discussion of user cost (letter 221, 28 March 1935). Finally we have the letters, mostly published, relating to the proof reading of the *General Theory*. One in particular is interesting, where Kahn insists upon clarity on the conceptual framework employed:

I do not like you saying that saving and investment are “different names for the same thing”. They are *different* things (that is the whole point) – they are certainly different acts – but they are equal in *magnitude*. I still hold that the simple-minded proof that saving = investment, appropriate for those who cannot grapple with user cost, etc. is called for – not only for the sake of the simple minded, but to prevent the obvious retort that all your stuff depends on your peculiar definitions. What is wrong with saying that *however* income is defined,

income = value of output = consumption + investment

also income = consumption + saving

∴ saving = investment

This truth is far too important (and far too seldom recognised) to be concealed in a mist of subtle definition.

(letter 388, October 1935, CWK XIII: 637)

Keynes duly accepted his advice (compare *General Theory*, CWK VII: 63 with the third proof, CWK XIV: 424) and Kahn’s formulation entered the final version of the book.

7. Finances

In the spring of 1937 Keynes fell seriously ill and for months all matters – especially College finances and University business – had to be handed over to Kahn. Kahn had already assisted Keynes in his capacity as First Bursar of King’s,¹¹ during Keynes’s illness matters related to College

¹¹ Keynes became Second Bursar in November 1919 and from 1924 until his death in 1946, First Bursar. Kahn was appointed Second Bursar in 1935. On Keynes’s death Kahn succeeded him as First Bursar. Kahn’s abilities were highly praised, as Keynes wrote to him: “The following reaches me from the Estates Committee (don’t confess I sent it you): ‘It may interest (though not surprise) you to hear from outside that Kahn’s handling of the Committee, with its immense agenda, was masterly, alike for lucidity, persuasiveness and speed; a very fine performance’” (letter 296, 26 July 1937). In November 1937, Keynes wrote to Kahn with gratitude: “now that Audit has come and the fulfilment of the worst part of your

finances and their own financial investments were dealt with by mail. In fact, almost half of the surviving letters are from 1937 and 1938,¹² the bulk of them consisting of discussion of personal and College finances. Investment activities for the College consisted of farming, property transactions, securities, currencies and commodities. Keynes's personal investments covered the same range of assets, but on a smaller scale and in a different composition.

It is difficult to give a full account of their dealings, but we can consider a few aspects. On each issue they exchanged detailed information, comparing their respective evaluation and assessment. Although the final decision usually rested with Keynes, he invariably sought Kahn's approval. He taught Kahn – who was in any case by nature so inclined – to keep updated with detailed knowledge of every aspect of the matter in hand. For instance, he wrote to him with regard to commodities speculation:

I feel ashamed to have given you so much trouble over commodities. But, as you are discovering, it is a business which needs hard work; and it does not turn out right over a period of years unless one attends to the details, which, cumulatively, add up to quite a lot.

(letter 377, 14 July 1937)

Keynes's dealings in commodities involved speculating on spot and futures markets mainly for copper, wheat, cotton, oil and lard, with mixed success. However, he thought that uncertainty about the outcomes was in the nature of speculative activity, as he explained to Kahn:

[...] it is safer to be a speculator than an investor in the sense that [...] a speculator is one who runs risks of which he is aware and an investor is one who runs risks of which he is unaware.

(CWK XII: 109)

Keynes's investment policy as far as securities were concerned consisted in holding a restricted number of them, which in his personal case consisted of car company shares, gold, American utilities and, later, aircraft firms. In fact, he explained to Kahn:

tasks, I must write to thank you for all your labours and for how well you have done them. Also I very much appreciated being kept in such close touch with everything, and only hope that this has not added too much to your work" (letter 411, November 1937).

¹² From 18 June to 23 September 1937, Keynes stayed at the clinic at Ruthin Castle in Wales.

My [...] policy [...] assumes the ability to pick specialities which have, on the average, prospects of raising enormously more than an index of market leaders [...]. It is largely the fluctuations which throw up the bargains and the uncertainty due to fluctuations which prevents other people from taking advantage of them.

(letter 2078, 5 May 1938, CWK XII: 100–1)

Throughout the 1937–38 Stock Exchange crisis, Keynes believed (with some wishful thinking) that his philosophy helped in keeping the value of College investment and his own relatively stable. He wrote to Kahn:

the indexes of ordinary shares, both in London and New York, are back almost exactly to the figures of January 1, 1935 [...] in the three years' swing, which has brought back prices to about where they were before, we shall have retained something approaching one-third of the appreciation as reported in 1936, which was not very far from the top point. If this is correct, it is a great deal better than most other people have done.

(letter 2069, 28 February 1938)

The running of College finances was a sensitive issue between them, as can be seen from an exchange in December 1943, when peace was seen as imminent and both were planning to return from government duties to the academic life. Kahn wrote to Keynes:

I am very much hoping that as soon as I am released from Whitehall you will allow me to relieve you to the fullest extent that you feel justifiable of the burden of bursial duties [...]. The question, therefore, that is bothering me is not so much one of the College interest [...] as of my intense desire to relieve you of unnecessary work (having failed completely to do it during the war).

(letter 25, 6 December 1943)

To which Keynes replied:

I, too, have no intention of staying in Government service any longer than I can. There is much of College business which I actually enjoy and would miss, if I were without it. It does not put on me any burden which is unduly heavy, even in the present circumstances, and at what one hopes may be a fairly early date I shall be trying to disentangle myself from anything like whole time in Whitehall.

(letter 24, 8 December 1943)

Keynes had helped Kahn with a loan of £500 in January 1934, when he was in financial difficulties arising from family problems and unlucky speculation in the German market. Four years later, Kahn was able to write to Keynes:

I think you would like to know that my net assets, after deducting all loans, including yours, are still (just) positive [...]. It has, of course, been touch and go, and without your great kindness I should by now have been done for.

(letter 163, 27 March 1938)¹³

8. University

The other issue that occupied the correspondence during the time when Keynes's illness prevented him from attending to his normal occupations was University business. Two problems in particular needed careful handling. The first was the question of giving J. Robinson a full-time lectureship in 1938. Some members of the Board opposed it, but Kahn succeeded in the end thanks also to Pigou's stand in her favour. Keynes wrote to Kahn:

I am extremely relieved that the matter of Joan's lectureship looks like being settled. For, if it had fallen through, it really would have been a case for armed insurrection. I am very glad that Pigou took the right line. Indeed, I expected him to do so. But how the other wretches can have failed to recognise that outside Cambridge she is unquestionably one of the most distinguished members of the staff, without the slightest doubt within the first half dozen, I cannot imagine. I wish I had been there to support you.

(letter 171, 19 February 1938)¹⁴

The second episode concerns Kalecki. He had arrived in England in 1936 and had spent the academic year 1936–37 mostly at the London School of Economics; at the end of 1937 he moved to Cambridge. In January 1938, Kahn told Keynes about the difficult situation Kalecki found himself in. He wrote:

Every time that I meet him I become more impressed by his absolutely terrific abilities. As you are aware, some of us would regard it as a terrible blot on economics and economists if towards the end of the summer he had to return to Warsaw with the idea of picking up a living by writing

¹³ Half of the loan was repaid in October 1938 (letter 130, 7/12 October 1938).

¹⁴ This was not the first time that Keynes had to step in to prevent J. Robinson from being ostracised. It also happened in 1935, when her lectures on "Money" met strong opposition from some members of the Faculty and Keynes had to send letters around to win her case (see Marcuzzo 1991; 2003; see also Sanfilippo 2005: 69; Marcuzzo and Sardoni 2005: 176; Carabelli 2005: 208; Naldi 2005: 339).

newspaper articles and possibly getting some minor commercial job. That is the alternative with which he is faced.

(letter 177, 27 January 1938)

Keynes gave his help, although he had mixed feelings about Kalecki's approach. He wrote to Kahn:

I have been greatly interested by his article in the latest *Econometrica*. I am not clear that he is perfectly right or that he has exploited his idea to the greatest possible advantage. But the idea itself seems to me an extraordinarily interesting and pregnant one. I am considering writing a comment on and development of what he has done. (I only wish he would not adopt such an appalling method of exposition. His Mathematics seems to be largely devoted to covering up the premises and making it extremely difficult to bring one's intuition to bear).

(letter 157, 30 April 1938)

In the *Econometrica* article Kalecki showed that by assuming imperfect competition he was able to explain the stability of the wage rate in the cycle (Kalecki 1938). Thus it was Kalecki who challenged both the assumption of perfect competition and rising marginal costs and, consequently, his version of the theory of effective demand – unlike Keynes's – did not require the real wage to rise with employment. His result, however, was based on the assumption that the degree of monopoly varied inversely with the level of economic activity. Keynes did not like it, because Kalecki's answer to the question of the constancy of real wages depended on the “coincidence” of the degree of monopoly having exactly the right magnitude to produce the desired outcome.

At the end of 1938, “The Cambridge Research Scheme of the National Institute of Economic and Social Research into Prime Costs, Proceeds and Output” was set up and provided Kalecki with a job in Cambridge. The members of the Board were Austin Robinson, Kahn, Kalecki, Champernowne and Sraffa, while Keynes was Chairman. After one year, Kalecki presented the main results of his research on the degree of monopoly in the form of an “Interim Report” (see Marcuzzo 1996), which received very critical comments from J. Robinson and R. Kahn. Soon afterwards, Kalecki resigned and left Cambridge.¹⁵

¹⁵ See letters between Kahn and Kalecki in July 1939 (RFK papers, 5/1/146–47; 149–58; 159–62; 163–69).

9. War

Great Britain declared war on 3 September 1939. Keynes was anxious to secure Kahn a post as wartime Civil Servant in the Treasury, but initially there was opposition because he was “so clearly associated with Keynes, who at this time was still regarded with suspicion” (Kahn 1988: 28).

Eventually a post was found for Kahn at the Board of Trade, under the Chairmanship of Oliver Lyttelton, and he started working there in December 1939, reporting to Keynes in a gloomy mood (letter 93, 17 December 1939). In May 1940 they corresponded on the issue of exchange control; Keynes sent him a draft of the report on the issue he was writing for the Treasury (CWK XII: 163–71) and got from Kahn “as usual, most valuable criticism” (letter 84, 26 May 1940).

A few months later Kahn discovered that: “The Treasury (in the shape of an official of the establishment Department – not Sir Horace Wilson) agreed to my appointment only on condition that I had nothing to do with currency questions!” (letter 77, 30 June 1940). Keynes took this information light-heartedly: “Either all questions are currency questions, or none are. So I suggest you adopt the latter interpretation” (letter 75, 3 July 1940).

The Board of Trade covered a very wide administrative field. It was responsible for trade at home and for exporting abroad. Since at the outbreak of the war only 10 per cent of all goods required for consumption were produced within Britain, the first task of the Board of Trade was to find a consistent policy to reduce the consumer goods available on the market. The reduction in consumption was necessary to conserve shipping space, materials and manpower for war purposes, to free foreign exchange for vital purchases of war materials and civilian necessities abroad and to assure the fair distribution of limited resources. Within a year after the outbreak of the War, it had become clear that in order to reduce consumption sufficiently the Government had to resort to direct rationing for food and clothing. In this area Kahn gave an important contribution (see Kahn 1988: 36–37).

Initially, he felt that he did not have complete support from Keynes on the need to create unemployment, by releasing labour from civilian occupations in order to make it available to war production, and he complained to Keynes, who immediately reacted:

I am not at all against your policy of creating unemployment. Far from it. It is a question of pace; and also I was talking in the context of creating unemployment to the detriment of exports, which is rather a different thing

from home consumption. I am all for your policy, so far as the home consumer is concerned.

(letter 81, 2 June 1940)

A month later, Kahn forcibly reaffirmed his position:

To my mind the real moral to be drawn from our present difficulties lies in the overwhelming importance of strenuous measures to restrict home consumption. These will do everything that is required – release labour, reduce imports, increase exports.

(letter 76, 2 July 1940)

Another issue arose a few weeks later over priorities, following a broadcast made by Keynes on “British finances after the War” (CWK XXII: 240–45), to which Kahn strongly reacted:

Your statement about the adequacy of existing measures might have been made equally well any time in the last three years. If it is a fact that the negligible sacrifices now imposed on us are adequate to deal with the existing scale of expenditure, is it not nothing less than criminal that we are not making more intense efforts to bring the war to a successful end? [...]. This brings me to the real issue between us. You still think of fiscal measures as required purely and simply to avoid a rise of prices. As the scale of war effort is enlarged further fiscal measures are necessary to achieve this end but only as and when. My own view is that all this emphasis on the danger of inflation is most retrograde and that what we ought really to be considering is how far fiscal and other measures are capable of speeding things up. I hold the view more strongly than ever that the immobilisation of labour for the purposes of home consumption is the main obstacle to an enlargement of the personnel and equipment of the fighting forces.

(letter 72, 25 September 1940)

10. In the Middle East

At the outbreak of the War, the British wanted to be able to safeguard communications with India and the Far East and to keep open the Red Sea, the Suez Canal and the Mediterranean for ocean shipping. With the intervention of Italy in June 1940, the Mediterranean was closed to sea transport, and supplies to the Middle East had to be shipped around the Cape of Good Hope. After the Italian invasion of Greece in October 1940 – which resulted in British support to the Greeks – the demand on shipping for supplies of all kinds (military and civilian) became extremely acute.

In London a proposal was drawn up for what was to be called a Middle East Supply Centre to co-ordinate procurement and shipping programmes for the area. In addition to Egypt, Sudan, Palestine, Malta and Cyprus, the area of the responsibility included – after the German invasion of the Balkans in June 1941 – Syria and Lebanon; between March and December 1942, Iraq, Persia, Saudi Arabia and the Persian Gulf Sheikdoms were added to the area and in November 1942, Cyrenaica and Tripolitania were included.

Oliver Lyttelton was appointed Minister of State in the Middle East in 1941. Kahn wrote to Keynes:

Oliver [Lyttelton] before leaving, sent a message that he would probably want me. You were not available for consultation and I gave way without hesitation to my natural instincts and said I would love it [...] I feel rather bad about you and the College. I have done practically nothing for either for a long time but I suppose having me in the background is some slight safeguard.

(letter 64, 21 August 1941)

Keynes acquiesced with some doubts;¹⁶ at least he wanted to make sure that Kahn was given “a more substantial job than the particular thing, which Oliver proposes to invent for you” (letter 62, 24 August 1941). Shortly afterwards, Keynes asked Kahn, “as my traditional first class critic” (letter 61, 9 September 1941), for his comments on the proposal of an international currency union, and received a very favourable response.

Kahn came to Cairo in October 1941; he was made Economic Adviser and from January 1942 he acted as Deputy Director General of the Centre. The Centre was concerned with the collection of information, recommendations on the priority of imports, and co-ordination of the executive acts of the governments of the Middle East. It required dealings with 20 or more different governments with separate administrations and independent monetary systems (see Kahn 1988: 42–45). The Middle East Supply Centre has been described as “one of the most ambitious and successful of the British War time experiments” (Behrens 1955: 227).

Keynes continued to consult Kahn on various matters, such as post-war currency policy (letter 61, 9 September 1941) and College accounts (letter 58, 31 October 1941). For his part, Kahn turned to Keynes for advice and consultation on Middle East affairs, such as the finances of Palestine (letter 52, 30 March 1942) and Persia (letter 32, 1 November 1942).

¹⁶ “I expect you will greatly enjoy the trip, but whether the gain to the Middle East will be equal to the loss of the Board of Trade, I am not sure” (letter 62, 24 August 1941).

However, Kahn soon grew dissatisfied with his position and the way matters were being handled between London and Cairo, and asked Keynes's help to be sent back home (letter 42, 16 August 1942). Keynes was supportive:

I expect you are taking much too dark a view of the position and that you will feel differently after a change and a holiday. All the same, I expect you have done all that is possible to do there, and I am strongly of your opinion that it would be a good idea to come home, where you are badly wanted.

(letter 41, 28 August 1942)

Approval from London was held up for a while, but eventually granted.

11. Last Years

When Kahn returned to London, in January 1943,¹⁷ he spent one year with the Ministry of Supply, where he was concerned with the post-war situation of raw materials (copper, steel, wool, tin), both their production and their prospective prices. He then joined the Ministry of Production for a while and consequently returned to the Board of Trade. Once again, collaboration with Keynes was close, and both worked on buffer stocks and the post-war problems of the sterling area.

The correspondence of the last two years of Keynes's life is very scant. In April 1944, Keynes was urging Kahn – “very much in the interest of the College and of economics at Cambridge” (letter 12, 24 April 1944) – to return to academic life.¹⁸ In November 1945, once negotiations in the US were over, Keynes himself longed to be back in King's. He wrote to Kahn:

This has been the most harassing and exhausting negotiation you can imagine. All of us are stale and exhausted and have outstayed our welcome. There is nothing more to be said on either side [...]. So if I can turn up back home in time for the Annual Congregation [on the 8th of December], it will be a great happiness.

(letter 5, 23 November 1945)

¹⁷ See letter 1727 from JMK to NK, 15 January 1943: “Kahn is expected in London tomorrow – he is believed to have reached Lisbon”.

¹⁸ Keynes was at the time involved in the process of reshaping the post-war academic economic research and teaching in Cambridge, which he felt was badly needed. He wrote to Kahn: “It is a great misfortune for an economist to have been brought up on economics, and I should like to return to the old custom of always selecting for Professorships those who had no previous acquaintance with the subject” (letter 16, 3 April 1944).

He did not make it after all, as we know, since he embarked on the Queen Elizabeth, in New York, on 11 December and arrived in Southampton on 17 December (Moggridge 1992: 815).

The last letter to Kahn is from Savannah, where Keynes had travelled on March 1946 to christen the IMF and the World Bank, and shows all his disappointment:

The Americans have no idea of how to make these institutions into operating international concerns, and in almost every direction their ideas are bad. Yet they plainly intend to force their own conceptions through regardless of the rest of us.

(letter 1, 13 March 1946, CWK XXVI: 217)

We do not have Kahn's reply to this letter, but we do have an article that he wrote in 1976, entitled *Historical Origins of the International Monetary Fund*, in which he meticulously reconstructed Keynes's ideas, his commitment to building a new monetary order and the anguish of the last weeks of his life (Kahn 1976).

Kahn returned to Cambridge only in September 1946, a few months after Keynes's death, in the April of that year. He succeeded Keynes as First Bursar of the College, was in charge of winding up his estate and looking after the finances of his wife, Lydia, and acted as Keynes's literary executor.

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Table 6.1. Keynes–Kahn correspondence

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JMK	RFK	1928	June	15	Dated letter	Kahn–King’s	RFK/13/57/1	242
RFK	JMK	1928	June	17	Dated letter	Keynes–King’s	L/K/1–2	240
RFK	JMK	1928	October	10	Dated letter	Keynes–King’s	UA/5/2/83	241
RFK	JMK	1928	December	3	Dated letter	Keynes–King’s	L/K/3–7	237
RFK	JMK	1929	July	9	Dated letter	Keynes–King’s	L/K/8–11	239
JMK	RFK	1929	July	29	Dated letter	Keynes–King’s	L/K/12–16	238
RFK	JMK	1929	September	29	Dated letter	Keynes–King’s	TM/1/2/42–3	236
RFK	JMK	1929	December	17	Dated letter	Keynes–King’s	L/K/17–20	379
RFK	JMK	1930	March		Attributed	Keynes–King’s	EJ/1/3/183–5	231
RFK	JMK	1930	March		Attributed	Keynes–King’s	L/K/21–2	235
RFK	JMK	1930	March	12	Dated letter	Keynes–King’s	L/K/23–4	395
JMK	RFK	1930	March	12	Dated letter	Kahn–King’s	RFK/13/57/2	234
RFK	JMK	1930	March	16	Dated letter	Keynes–King’s	L/K/27–30	269
JMK	RFK	1930	March	16	Dated letter	Kahn–King’s	RFK/13/57/3–4	233
JMK	RFK	1930	March	18	Dated letter	Keynes–King’s	L/K/25–6	232
JMK	RFK	1930	May	26	Dated letter	Kahn–King’s	RFK/13/57/5–6	285
RFK	JMK	1930	August	17	Dated letter	Keynes–King’s	EA/1/50	230
RFK	JMK	1930	August	26	Dated letter	Keynes–King’s	EA/1/63	229
RFK	JMK	1930	September	17	Dated letter	Keynes–King’s	L/K/31–2	244
RFK	JMK	1930	September	19	Dated letter	Keynes–King’s	L/K/33–4	243
RFK	JMK	1931	March	25	Dated letter	Keynes–King’s	TM/1/4/120A–D	381
RFK	JMK	1931	April	5	Dated letter	Keynes–King’s	TM/1/4/128–34	405
RFK	JMK	1931	April	17	Dated letter	Keynes–King’s	TM/1/4/135–6	380

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JMK	RFK	1931	April	20	Dated letter	Keynes–King’s	GTE/1/1	CWKXXIX: 12–13, (E)
RFK	JMK	1931	May	7	Dated letter	Keynes–King’s	TM/1/4/124–7	CWK XIII: 212–13, (E)
RFK	JMK	1931	July	28	Dated letter	Keynes–King’s	EJ/7/11	268
JMK	RFK	1931	July	29	Dated letter	Kahn–King’s	RFK/2/2/1–2	424
RFK	JMK	1931	July	31	Dated letter	Keynes–King’s	L/31/99–103	267
JMK	RFK	1931	August	13	Dated letter	Kahn–King’s	RFK/13/57/8	CWK XX: 594–5, (E)
RFK	JMK	1931	August	15	Dated letter	Keynes–King’s	EJ/6/7/1–6	CWK XIII: 218–19, (E)
JMK	RFK	1931	September	20	Dated letter	Keynes–King’s	GTE/1/20–2	CWK XIII: 373–5, (E)
RFK	JMK	1931	September	24	Dated letter	Keynes–King’s	GTE/1/18–19	CWK XIII: 375, (E)
JMK	RFK	1932	February	1	Dated letter	Kahn–King’s	RFK/13/57/9	264
RFK	JMK	1932	October	11	Dated letter	Keynes–King’s	CAC/1/91	282
RFK	JMK	1932	October	11	Dated letter	Keynes–King’s	TM/1/4/215–6	286
RFK	JMK	1932	October	14	Dated letter	Keynes–King’s	GTE/1/89–92	316
RFK	JMK	1932	October	29	Dated letter	Keynes–King’s	EJ/1/3/308	263
JMK	RFK	1932	December	12	Dated letter	Kahn–King’s	RFK/13/57/10–3	262
RFK	JMK	1933	January	20	Dated letter	Keynes–King’s	L/K/35–8	CWK XIII: 412–13, (E)
JMK	RFK	1933	January	29	Dated letter	Kahn–King’s	RFK/13/57/14–5	CWK XIII: 413, (E)
RFK	JMK	1933	February	16	Dated letter	Keynes–King’s	L/K/39–42	Marcuzzo 1998: 18, (E)
RFK	JMK	1933	March	7	Dated letter	Keynes–King’s	L/K/43–4	259
RFK	JMK	1933	March	10	Dated letter	Keynes–King’s	L/K/45	288
JMK	RFK	1933	March	10	Dated letter	Kahn–King’s	RFK/13/57/16–7	Moggridge 1992: 590,
JMK	RFK	1933	March	16	Dated letter	Kahn–King’s	RFK/13/57/18–9	CWK XXI: 168, (E)
						Keynes–King’s	L/K/48–9	
RFK	JMK	1933	March	19	Dated letter	Keynes–King’s	L/K/50–1	252
JMK	RFK	1933	March	20	Dated letter	Kahn–King’s	RFK/13/57/20	CWK XXI: 168, (E)

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JMK	RFK	1933	March	24	Dated letter	Kahn–King’s	RFK/13/57/21	CWK XIII: 413, (E)
RFK	JMK	1933	March	30	Dated letter	Keynes–King’s	L/K/52–5	CWK XIII: 414, (E)
JMK	RFK	1933	March	30	Dated letter	Kahn–King’s	RFK/13/57/22	CWK XIII: 413–14, (E)
RFK	JMK	1933	April	5	Dated letter	Keynes–King’s	L/K/56–9	273
RFK	JMK	1933	April	6	Dated letter	Keynes–King’s	L/K/60–1	287
JMK	RFK	1933	April	7	Dated letter	Kahn–King’s	RFK/13/57/23–4	272
RFK	JMK	1933	April	9	Dated letter	Keynes–King’s	L/K/62–4	280
RFK	JMK	1933	April	14	Dated letter	Keynes–King’s	L/K/65–6	255
RFK	JMK	1933	June	14	Dated letter	Kahn–King’s	RFK/13/57/53–4	257
JMK	RFK	1934	January	11	Dated letter	Keynes–King’s	UA/14/2/107	407
RFK	JMK	1934	January	16	Dated letter	Keynes–King’s	L/K/73–4	258
RFK	JMK	1934	January	24	Dated letter	Keynes–King’s	UA/14/2/119	256
RFK	JMK	1934	March	14	Dated letter	Keynes–King’s	PP/45/161/1–2	283
RFK	JMK	1934	March	20	Dated letter	Keynes–King’s	GTE/1/191–5	383
RFK	JMK	1934	March	21	Dated letter	Keynes–King’s	GTE/1/196	384
JMK	RFK	1934	April	13	Dated letter	Kahn–King’s	RFK/13/57/46–7	249
JMK	RFK	1934	May	23	Postmark	Kahn–King’s	RFK/13/57/48	392
JMK	RFK	1934	May	27	Dated letter	Kahn–King’s	RFK/13/57/49–50	281
JMK	RFK	1934	June	25	Dated letter	Keynes–King’s	UA/5/3/90	406
JMK	RFK	1934	August	1	Dated letter	Straffa–Trinity	Add.ms.a.427/30	247
RFK	JMK	1934	August	2	Dated letter	Kahn–King’s	RFK/13/57/57	248
RFK	JMK	1934	August	5	Dated letter	Keynes–King’s	UA/5/3/100–1	246
RFK	JMK	1934	August	9	Dated letter	Keynes–King’s	L/K/75	245
						Keynes–King’s	L/K/76–7	

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JMK	RFK	1934	August	13	Dated letter	Kahn-King's	RFK/13/57/58-9	228
RFK	JMK	1934	September	16	Dated letter	Keynes-King's	L/K/78-9	227
JMK	RFK	1934	September	18	Dated letter	Kahn-King's	13/57/60-1	226
JMK	RFK	1934	September	27	Dated letter	Kahn-King's	13/57/62	224
JMK	RFK	1934	October	3	Dated letter	Kahn-King's	RFK/13/57/63	213
JMK	RFK	1934	December	15	Dated letter	Kahn-King's	RFK/13/57/112-3	212
JMK	RFK	1935	January	1	Dated letter	Kahn-King's	RFK/13/57/122	211
RFK	JMK	1935	January	9	Dated letter	Keynes-King's	L/K/80	225
RFK	JMK	1935	January	11	Dated letter	Keynes-King's	SE/1/2/1-2	284
JMK	RFK	1935	January	13	Dated letter	Kahn-King's	RFK/13/57/122	210
RFK	JMK	1935	January	14	Dated letter	Kahn-King's	RFK/13/57/123	201
JMK	RFK	1935	January	15	Dated letter	Kahn-King's	RFK/13/57/124-5	223
RFK	JMK	1935	March	22	Dated letter	Keynes-King's	L/K/81	202
RFK	JMK	1935	March	25	Dated letter	Keynes-King's	L/K/84	203
JMK	RFK	1935	March	26	Dated letter	Kahn-King's	RFK/13/57/126-7	222
RFK	JMK	1935	March	28	Dated letter	Keynes-King's	L/K/82-3	221
JMK	RFK	1935	March	21	Dated letter	Keynes-King's	L/K/85-6	220
JMK	RFK	1935	July	29	Dated letter	Kahn-King's	RFK/13/57/128-9	277
JMK	RFK	1935	July	30	Dated letter	Kahn-King's	RFK/13/57/130-1	278
JMK	RFK	1935	August	27	Dated letter	Kahn-King's	RFK/13/57/132-3	219
JMK	RFK	1935	September		Attributed	Keynes-King's	GTE/1/337	387
RFK	JMK	1935	September		Attributed	Keynes-King's	GTE/1/338-9	386
RFK	JMK	1935	September	2	Dated letter	Keynes-King's	KC/5/5/191-2	320
JMK	RFK	1935	September	4	Dated letter	Keynes-King's	GTE/1/350-1	391

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RFK	JMK	1935	September	5	Dated letter	Keynes-King's	GTE/1/347-8	321
JMK	RFK	1935	September	8	Dated letter	Keynes-King's	KC/5/5/193	209
JMK	RFK	1935	September	15	Dated letter	Kahn-King's	RFK/13/57/137-8	208
RFK	JMK	1935	September	22	Dated letter	Kahn-King's	RFK/13/57/139-	413
RFK	JMK	1935	October		Attributed	Keynes-King's	KC/5/5/194-6	388
JMK	RFK	1935	October	7	Dated letter	Keynes-King's	GTE/1/343-5	389
JMK	RFK	1935	October	24	Dated letter	Keynes-King's	GTE/1/349	218
RFK	JMK	1936	January	15	Dated letter	Kahn-King's	RFK/13/57/141	322
RFK	JMK	1936	February	21	Dated letter	Keynes-King's	KC/5/5/197	412
JMK	RFK	1936	March	10	Dated letter	Keynes-King's	A/36/6	207
RFK	JMK	1936	March	17	Dated letter	Keynes-King's	GTE/2/4/255	206
JMK	RFK	1936	March	26	Dated letter	Keynes-King's	GTE/2/3/1-2	217
RFK	JMK	1936	March	27	Dated letter	Keynes-King's	GTE/2/3/3-4	216
RFK	JMK	1936	June	2	Dated letter	Keynes-King's	GTE/2/2/2-4	426
RFK	JMK	1936	July	20	Dated letter	Keynes-King's	UA/5/4/9	323
JMK	RFK	1936	July	22	Dated letter	Keynes-King's	KC/5/5/204	317
JMK	RFK	1936	August	27	Dated letter	Keynes-King's	KC/5/5/205-6	215
RFK	JMK	1936	November	9	Dated letter	Kahn-King's	RFK/13/57/142-3	2195
JMK	RFK	1936	November	9	Attributed	Keynes-King's	BM/2/405	414
RFK	JMK	1936	November	9	Dated letter	Keynes-King's	KC/5/5/212	2196
RFK	JMK	1936	December	6	Dated letter	Keynes-King's	KC/5/5/212	319
JMK	RFK	1936	December	10	Dated letter	Keynes-King's	A/37/77-8	204
RFK	JMK	1936	December	13	Dated letter	Kahn-King's	RFK/13/57/144	390
						Keynes-King's	GTE/2/3/5	
							CWK XIII: 637, (E)	
							CWK XIII: 636, (E)	
							CWK XIV: 108, (E)	

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JMK	RFK	1936	December	13	Dated letter	Keynes–King’s	UA/14/2/233–4	214
RFK	JMK	1936	December	17	Dated letter	Keynes–King’s	KC/5/5/241	324
RFK	JMK	1936	December	17	Dated letter	Keynes–King’s	UA/14/2/236–7	205
RFK	JMK	1936	December	18	Dated letter	Keynes–King’s	KC/5/5/245–7	279
RFK	JMK	1936	December	24	Dated letter	Keynes–King’s	KC/5/5/250	415
JMK	RFK	1937	March	25	Dated letter	Kahn–King’s	RFK/13/57/145–6	408
JMK	RFK	1937	March	30	Dated letter	Kahn–King’s	RFK/13/57/149–	291
JMK	RFK	1937	April	19	Dated letter	Kahn–King’s	RFK/13/57/151–2	357
RFK	JMK	1937	April	21	Dated letter	Keynes–King’s	KC/5/5/244	358
RFK	JMK	1937	May	7	Dated letter	Keynes–King’s	L/37/9	359
JMK	RFK	1937	June	20	Dated letter	Kahn–King’s	RFK/13/57/157–9	360
JMK	RFK	1937	June	23	Dated letter	Kahn–King’s	RFK/13/57/162	361
JMK	RFK	1937	June	24	Dated letter	Kahn–King’s	RFK/13/57/165–6	370
JMK	RFK	1937	June	25	Dated letter	Kahn–King’s	RFK/13/57/167–8	371
JMK	RFK	1937	June	30	Dated letter	Kahn–King’s	RFK/13/57/169–	372
JMK	RFK	1937	July	1	Dated letter	Kahn–King’s	RFK/13/57/171–2	362
RFK	JMK	1937	July	2	Dated letter	Keynes–King’s	KC/5/6/40–2	292
JMK	RFK	1937	July	2	Dated letter	Kahn–King’s	RFK/13/57/173	363
JMK	RFK	1937	July	3	Dated letter	Kahn–King’s	RFK/13/57/174–5	293
JMK	RFK	1937	July	6	Dated letter	Kahn–King’s	RFK/13/57/176	2090
JMK	RFK	1937	July	6	Dated letter	Kahn–King’s	RFK/13/57/177–8	364
JMK	RFK	1937	July	7	Dated letter	Kahn–King’s	RFK/13/57/179	373
JMK	RFK	1937	July	8	Dated letter	Kahn–King’s	RFK/13/57/180–1	374
JMK	RFK	1937	July	9	Dated letter	Kahn–King’s	RFK/13/57/187	365
RFK	JMK	1937	July	11	Dated letter	Keynes–King’s	KC/5/6/43–4	366

Skidelsky 2000: 7, (E)

CWK XII: 22, (E)

Moggridge 1992: 608,

Moggridge 1992: 608 (E)

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JMK	RFK	1937	July	11	Dated letter	Kahn–King’s	RFK/13/57/182–4	294
JMK	RFK	1937	July	12	Dated letter	Kahn–King’s	RFK/13/57/188–9	295
JMK	RFK	1937	July	13	Dated letter	Kahn–King’s	RFK/13/57/190	376
JMK	RFK	1937	July	13	Dated letter	Kahn–King’s	RFK/13/57/191–2	375
JMK	RFK	1937	July	14	Dated letter	Kahn–King’s	RFK/13/57/193–4	377
JMK	RFK	1937	July	15	Dated letter	Kahn–King’s	RFK/13/57/195–6	378
JMK	RFK	1937	July	17	Dated letter	Kahn–King’s	RFK/13/57/197–8	367
JMK	RFK	1937	July	17	Dated letter	Kahn–King’s	RFK/13/57/199–	398
JMK	RFK	1937	July	17	Dated letter	Kahn–King’s	RFK/13/57/201	351
RFK	JMK	1937	July	18	Dated letter	Keynes–King’s	KC/5/6/60	356
RFK	JMK	1937	July	19	Dated letter	Keynes–King’s	KC/5/6/61–3	290
JMK	RFK	1937	July	20	Dated letter	Kahn–King’s	RFK/13/57/202–3	352
RFK	JMK	1937	July	21	Dated letter	Keynes–King’s	KC/5/6/64	404
RFK	JMK	1937	July	22	Dated letter	Keynes–King’s	KC/5/6/70–1	289
JMK	RFK	1937	July	22	Dated letter	Kahn–King’s	RFK/13/57/204	353
JMK	RFK	1937	July	23	Dated letter	Keynes–King’s	KC/5/6/72–3	312
RFK	JMK	1937	July	23	Dated letter	Keynes–King’s	KC/5/6/74–5	313
JMK	RFK	1937	July	23	Dated letter	Keynes–King’s	KC/5/6/76–9	315
JMK	RFK	1937	July	23	Dated letter	Keynes–King’s	KC/5/6/80–2	314
JMK	RFK	1937	July	24	Dated letter	Kahn–King’s	RFK/13/57/205	354
JMK	RFK	1937	July	24	Dated letter	Kahn–King’s	RFK/13/57/206–7	355
RFK	JMK	1937	July	26	Dated letter	Keynes–King’s	KC/5/6/84	350
JMK	RFK	1937	July	26	Dated letter	Kahn–King’s	RFK/13/57/208–9	296
							CWIK XII: 24, (E)	
							Skidelsky 2000: 32, (E)	
							Skidelsky 2000: 28, (E)	

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RFK	JMK	1937	July	27	Dated letter	Keynes—King's	KC/5/6/87-8	297
JMK	RFK	1937	August		Attributed	Kahn—King's Keynes—King's	RFK/13/57/213-6 EJ/1/4/67-70	298
JMK	RFK	1937	August		Attributed	Kahn—King's	RFK/13/57/221	2052
JMK	RFK	1937	August	20	Dated letter	Kahn—King's	RFK/13/57/210-1	349
JMK	RFK	1937	August	20	Postmark	Kahn—King's	RFK/13/57/212	397
JMK	RFK	1937	August	21	Dated letter	Kahn—King's	RFK/13/57/217-8	299
JMK	RFK	1937	August	22	Dated letter	Kahn—King's	RFK/13/57/219-	343
RFK	JMK	1937	August	23	Dated letter	Keynes—King's	KC/5/6/106	418
RFK	JMK	1937	August	23	Dated letter	Kahn—King's	RFK/13/57/222	344
JMK	RFK	1937	August		Dated letter	Kahn—King's	RFK/13/57/222	452
JMK	RFK	1937	August	24	Dated letter	Kahn—King's	RFK/13/57/223-4	345
JMK	RFK	1937	August	25	Dated letter	Kahn—King's	RFK/13/57/225	347
RFK	JMK	1937	August	25	Dated letter	Kahn—King's	RFK/13/57/225	2197
JMK	RFK	1937	August	25	Dated letter	Kahn—King's	RFK/13/57/226	346
JMK	RFK	1937	August	26	Dated letter	Kahn—King's	RFK/13/57/225	2198
JMK	RFK	1937	August	26	Dated letter	Kahn—King's	RFK/13/57/227-8	348
RFK	JMK	1937	August	27	Dated letter	Keynes—King's	EJ/1/4/71-3	401
RFK	JMK	1937	August	28	Dated letter	Keynes—King's	KC/5/6/94-7	300
RFK	JMK	1937	August	29	Dated letter	Keynes—King's	KC/5/6/89-90	338
RFK	JMK	1937	August	29	Dated letter	Keynes—King's	KC/5/6/91	333
RFK	JMK	1937	August	29	Dated letter	Keynes—King's	KC/5/6/93	334
JMK	RFK	1937	August	29	Dated letter	Kahn—King's	RFK/13/57/229-	339
JMK	RFK	1937	August	30	Dated letter	Keynes—King's	EJ/1/4/71	402
RFK	JMK	1937	August	30	Dated letter	Keynes—King's	KC/5/6/92	340

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RFK	JMK	1937	August	31	Dated letter	Keynes-King's	EJ/1/4/81	342
RFK	JMK	1937	August	31	Dated letter	Keynes-King's	KC/5/6/98-101	341
JMK	RFK	1937	September	2	Dated letter	Kahn-King's	RFK/13/57/231-2	301
JMK	RFK	1937	September	4	Dated letter	Kahn-King's	RFK/13/57/233-6	302
JMK	RFK	1937	September	5	Dated letter	Keynes-King's	KC/5/6/102-3	325
RFK	JMK	1937	September	8	Dated letter	Kahn-King's	RFK/13/57/244	369
JMK	RFK	1937	September	9	Dated letter	Kahn-King's	RFK/13/57/244	368
RFK	JMK	1937	September	12	Dated letter	Keynes-King's	KC/5/6/104	326
JMK	RFK	1937	September	13	Dated letter	Kahn-King's	RFK/13/57/245-6	335
JMK	RFK	1937	September	1	Dated letter	Kahn-King's	RFK/13/57/247-8	336
JMK	RFK	1937	September	6	Dated letter	Kahn-King's	RFK/13/57/249	337
RFK	JMK	1937	September	2	Dated letter	Keynes-King's	KC/5/6/107-8	327
RFK	JMK	1937	October	0	Dated letter	Keynes-King's	KC/5/6/110	329
RFK	JMK	1937	October	2	Dated letter	Keynes-King's	KC/5/6/115	330
JMK	RFK	1937	October	2	Dated letter	Keynes-King's	KC/5/6/116	331
JMK	RFK	1937	October	7	Dated letter	Kahn-King's	RFK/13/57/252-3	303
RFK	JMK	1937	October	8	Dated letter	Keynes-King's	PP/45/178/6	2192
JMK	RFK	1937	October	11	Dated letter	Keynes-King's	EJ/1/4/152	304
JMK	RFK	1937	October	11	Dated letter	Keynes-King's	KC/5/6/117-20	332
JMK	RFK	1937	October	11	Dated letter	Kahn-King's	RFK/13/57/254	308
RFK	JMK	1937	October	13	Dated letter	Keynes-King's	KC/5/6/109	328
RFK	JMK	1937	October	14	Dated letter	Keynes-King's	KC/5/6/130-1	419
RFK	JMK	1937	October	15	Dated letter	Keynes-King's	KC/5/6/122-3	305
RFK	JMK	1937	October	18	Dated letter	Keynes-King's	EJ/1/4/176	400

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RFK	JMK	1937	October	18	Dated letter	Keynes–King’s	EJ/1/4/177	399
RFK	JMK	1937	October	20	Dated letter	Keynes–King’s	EJ/1/4/178 CWK XIV: 260, (E)	394
JMK	RFK	1937	October	20	Dated letter	Kahn–King’s	RFK/13/57/257	306
RFK	JMK	1937	October	22	Dated letter	Keynes–King’s	EJ/1/4/185	393
JMK	RFK	1937	October	25	Dated letter	Keynes–King’s	EJ/1/4/186–7	307
JMK	RFK	1937	October	25	Dated letter	Keynes–King’s	EJ/1/4/201–3	416
JMK	RFK	1937	October	26	Dated letter	Keynes–King’s	KC/5/6/37	2193
JMK	RFK	1937	October	26	Dated letter	Keynes–King’s	PP/45/178/6	309
RFK	JMK	1937	October	27	Dated letter	Kahn–King’s	RFK/13/57/258–9	310
RFK	JMK	1937	October	27	Dated letter	Keynes–King’s	KC/5/6/132–3	2194
RFK	JMK	1937	October	28	Dated letter	Keynes–King’s	KC/5/6/38–9	2199
JMK	RFK	1937	October	28	Dated letter	Kahn–King’s	PP/45/178/6	311
RFK	JMK	1937	October	29	Dated letter	Kahn–King’s	RFK/13/57/258	385
JMK	RFK	1937	November	1	Attributed	Kahn–King’s	RFK/13/57/260–1	411
JMK	RFK	1937	November	4	Dated letter	Keynes–King’s	RFK/13/57/262–3	428
JMK	RFK	1937	November	7	Dated letter	Keynes–King’s	KC/5/6/136–8	423
JMK	RFK	1937	November	7	Dated letter	Keynes–King’s	KC/5/6/140–2	422
RFK	JMK	1937	November	7	Dated letter	Keynes–King’s	KC/5/6/143	421
RFK	JMK	1937	November	10	Attributed	Keynes–King’s	KC/5/6/149–50	425
JMK	RFK	1937	November	14	Dated letter	Keynes–King’s	KC/5/6/139	200
JMK	RFK	1937	November	17	Dated letter	Keynes–King’s	KC/5/6/144	199
							CWK XIV: 258, (E)	
							CWK XIV: 260–2, (E)	
							CWK XIV: 259	
							CWK XII: 24, (E)	
							CWK XII: 22–3, (E)	
							KC/5/6/151–5	

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RFK	JMK	1937	November	17	Dated letter	Keynes-King's	KC/5/6/176-7	439
RFK	JMK	1937	November	17	Dated letter	Keynes-King's	L/K/87-8	437
JMK	RFK	1937	November	22	Dated letter	Keynes-King's	KC/5/6/188-9	196
RFK	JMK	1937	November	22	Dated letter	Keynes-King's	KC/5/6/190-1	442
RFK	JMK	1937	November	23	Dated letter	Keynes-King's	KC/5/6/192-4	444
RFK	JMK	1937	November	24	Dated letter	Keynes-King's	KC/5/6/203	446
RFK	JMK	1937	November	25	Dated letter	Keynes-King's	KC/5/6/204	192
RFK	JMK	1937	November	25	Dated letter	Keynes-King's	KC/5/6/213-4	191
RFK	JMK	1937	November	26	Dated letter	Keynes-King's	KC/5/6/205-6	449
JMK	RFK	1937	November	27	Dated letter	Keynes-King's	KC/5/6/195-202	188
JMK	RFK	1937	November	27	Dated letter	Keynes-King's	KC/5/6/207-8	189
RFK	JMK	1937	November	28	Dated letter	Keynes-King's	KC/5/6/209	187
RFK	JMK	1937	December	1	Dated letter	Keynes-King's	KC/5/6/235	186
JMK	RFK	1937	December	2	Dated letter	Keynes-King's	KC/5/6/244-5	453
RFK	JMK	1937	December	19	Dated letter	Keynes-King's	EJ/1/4/234-5	184
JMK	RFK	1937	December	23	Dated letter	Kahn-King's	RFK/13/57/270-2	183
RFK	JMK	1937	December	26	Dated letter	Keynes-King's	EJ/1/4/239-40	182
JMK	RFK	1937	December	29	Dated letter	Kahn-King's	RFK/13/57/274-6	181
						Keynes-King's	EJ/1/4/236-8	
							CWK XIV: 266-7, (E)	
RFK	JMK	1938	January	5	Dated letter	Keynes-King's	KC/5/9/2	2051
RFK	JMK	1938	January	6	Dated letter	Keynes-King's	KC/5/7/17-25	2055
JMK	RFK	1938	January	7	Dated letter	Keynes-King's	KC/5/7/27	2056
RFK	JMK	1938	January	15	Dated letter	Keynes-King's	KC/5/6/210	180
JMK	RFK	1938	January	16	Dated letter	Kahn-King's	RFK/13/57/277-8	179
							CWK XII: 28, (E)	

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RFK	JMK	1938	January	17	Dated letter	Keynes–King's	KC/5/7/38	2057
RFK	JMK	1938	January	18	Dated letter	Keynes–King's	KC/5/7/39	2058
RFK	JMK	1938	January	18	Dated letter	Kahn–King's	RFK/13/57/277–8	2200
RFK	JMK	1938	January	24	Dated letter	Keynes–King's	KC/5/7/40–1	2059
JMK	RFK	1938	January	26	Dated letter	Kahn–King's	RFK/13/57/279	178
RFK	JMK	1938	January	27	Dated letter	Kahn–King's	RFK/13/57/383–4	177
JMK	RFK	1938	January	29	Dated letter	Kahn–King's	RFK/13/57/295	445
RFK	JMK	1938	January	30	Dated letter	Keynes–King's	EJ/1/5/3–5	2208
JMK	RFK	1938	January	30	Dated letter	Kahn–King's	RFK/13/57/284	443
JMK	RFK	1938	January	30	Dated letter	Kahn–King's	RFK/13/57/381	176
RFK	JMK	1938	January	31	Dated letter	Keynes–King's	CO/11/311	175
RFK	JMK	1938	January	31	Dated letter	Keynes–King's	KC/5/7/42–4	2060
RFK	JMK	1938	January	31	Dated letter	Kahn–King's	RFK/13/57/284	2201
RFK	JMK	1938	January	31	Dated letter	Kahn–King's	RFK/13/57/381	2202
RFK	JMK	1938	February	1	Dated letter	Keynes–King's	KC/5/7/45	2061
RFK	JMK	1938	February	1	Dated letter	Keynes–King's	KC/5/7/46	2062
RFK	JMK	1938	February	4	Dated letter	Keynes–King's	KC/5/7/47–8	2063
JMK	RFK	1938	February	4	Dated letter	Kahn–King's	RFK/13/57/285	174
JMK	RFK	1938	February	10	Dated letter	Keynes–King's	KC/5/7/58	2064
RFK	JMK	1938	February	14–	Dated letter	Keynes–King's	L/K/89–93	172
RFK	JMK	1938	February	16	Dated letter	Keynes–King's	KC/5/7/69–71	2053
JMK	RFK	1938	February	16	Dated letter	Kahn–King's	RFK/13/57/286–7	173
JMK	RFK	1938	February	19	Dated letter	Keynes–King's	L/K/94–6	171
JMK	RFK	1938	February	21	Dated letter	Keynes–King's	KC/5/7/72–5	2065
RFK	JMK	1938	February	21	Dated letter	Keynes–King's	KC/5/7/79	2070

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RFK	JMK	1938	February	24	Dated letter	Keynes-King's	KC/5/7/90	2071
JMK	RFK	1938	February	26	Dated letter	Keynes-King's	KC/5/7/88-9	2066
JMK	RFK	1938	February	26	Dated letter	Keynes-King's	KC/5/7/94-5	2067
RFK	JMK	1938	February	27	Dated letter	Keynes-King's	KC/5/7/102-3	2068
JMK	RFK	1938	February	28	Dated letter	Keynes-King's	KC/5/7/104	2072
JMK	RFK	1938	February	28	Dated letter	Keynes-King's	KC/5/7/91-3	2069
JMK	RFK	1938	March	3	Dated letter	Kahn-King's	RFK/13/57/288	170
JMK	RFK	1938	March	5	Dated letter	Kahn-King's	RFK/13/57/289	168
JMK	RFK	1938	March	5	Dated letter	Kahn-King's	RFK/13/57/290	166
JMK	RFK	1938	March	7	Dated letter	Keynes-King's	KC/5/7/106-17	2073
RFK	JMK	1938	March	8	Dated letter	Kahn-King's	RFK/13/57/289	169
JMK	RFK	1938	March	9	Dated letter	Kahn-King's	RFK/13/57/289	167
JMK	RFK	1938	March	16	Dated letter	Keynes-King's	KC/5/7/118-19	2074
JMK	RFK	1938	March	16	Dated letter	Kahn-King's	RFK/13/57/291	165
JMK	RFK	1938	March	22	Dated letter	Keynes-King's	KC/5/7/120-1	441
RFK	JMK	1938	March	24	Dated letter	Kahn-King's	RFK/13/57/379	2206
RFK	JMK	1938	March	24	Dated letter	Keynes-King's	KC/5/7/122-3	2207
RFK	JMK	1938	March	25	Dated letter	Keynes-King's	KC/5/7/124-6	164
RFK	JMK	1938	March	27	Dated letter	Keynes-King's	NS/1/4/166 L/K/97	163
JMK	RFK	1938	March	29	Dated letter	Kahn-King's	RFK/13/57/292-3	162
JMK	RFK	1938	April	9	Dated letter	Kahn-King's	RFK/13/57/371	161
JMK	RFK	1938	April	13	Dated letter	Kahn-King's	RFK/13/57/294	160
JMK	RFK	1938	April	15	Dated letter	Keynes-King's	KC/5/7/137	2075

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RFK	JMK	1938	April	19	Dated letter	Keynes–King’s	KC/5/7/137	2076
JMK	RFK	1938	April	23	Dated letter	Kahn–King’s	RFK/13/57/300–1	159
JMK	RFK	1938	April	29	Dated letter	Keynes–King’s	EJ/1/5/112–13	158
JMK	RFK	1938	April	30	Dated letter	Keynes–King’s	KC/5/7/138–9	2077
JMK	RFK	1938	April	30	Dated letter	Kahn–King’s	RFK/13/57/365–6	157
JMK	RFK	1938	May		Attributed	Kahn–King’s	RFK/13/57/302	448
JMK	RFK	1938	May		Attributed	Kahn–King’s	RFK/13/57/364	451
RFK	JMK	1938	May	3	Dated letter	Kahn–King’s	RFK/13/57/363	155
JMK	RFK	1938	May	3	Attributed	Kahn–King’s	RFK/13/57/363	156
JMK	RFK	1938	May	5	Dated letter	Not found in archives	CWK XII: 100–1, (E)	154
JMK	RFK	1938	May	5	Dated letter	Keynes–King’s	KC/5/7/140–1	2078
RFK	JMK	1938	May	5	Dated letter	Keynes–King’s	KC/5/7/142–3	2079
JMK	RFK	1938	May	5	Dated letter	Keynes–King’s	KC/5/7/144	2211
RFK	JMK	1938	May	8	Dated letter	Keynes–King’s	KC/5/7/218	2080
RFK	JMK	1938	May	8	Dated letter	Keynes–King’s	KC/5/7/219–24	2081
RFK	JMK	1938	May	9	Dated letter	Keynes–King’s	KC/5/7/144	2210
RFK	JMK	1938	May	12	Dated letter	Keynes–King’s	KC/5/7/158	2082
JMK	RFK	1938	May	12	Dated letter	Keynes–King’s	KC/5/7/159	193
JMK	RFK	1938	May	12	Dated letter	Keynes–King’s	KC/5/7/180–1	2083
JMK	RFK	1938	May	13	Dated letter	Kahn–King’s	RFK/13/57/304	153
RFK	JMK	1938	May	18	Dated letter	Keynes–King’s	KC/5/7/182–3	2084
RFK	JMK	1938	May	19	Dated letter	Keynes–King’s	KC/5/7/182	2085
RFK	JMK	1938	May	29	Dated letter	Keynes–King’s	EJ/1/5/138–40	152
RFK	JMK	1938	June	9	Dated letter	Keynes–King’s	KC/6/28–9	2086

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RFK	JMK	1938	June	13	Dated letter	Keynes-King's	KC/6/25-7	2087
JMK	RFK	1938	June	14	Dated letter	Keynes-King's	KC/6/18-20	2088
JMK	RFK	1938	June	21	Dated letter	Keynes-King's	KC/6/30	2089
JMK	RFK	1938	June	25	Dated letter	Keynes-King's	KC/6/50-6	151
RFK	JMK	1938	June	27	Dated letter	Keynes-King's	KC/6/35-40	2092
RFK	JMK	1938	June	27	Dated letter	Kahn-King's	RFK/13/57/307-8	2091
JMK	RFK	1938	June	27	Dated letter	Keynes-King's	KC/5/8/3-4	150
JMK	RFK	1938	June	27	Dated letter	Keynes-King's	KC/6/42-3	2093
JMK	RFK	1938	June	28	Dated letter	Keynes-King's	KC/6/33-4	2090
RFK	JMK	1938	June	28	Dated letter	Kahn-King's	RFK/13/57/351	2094
RFK	JMK	1938	June	28	Dated letter	Keynes-King's	KC/6/57-8	450
RFK	JMK	1938	June	28	Dated letter	Keynes-King's	KC/6/59-60	149
RFK	JMK	1938	June	30	Dated letter	Keynes-King's	KC/6/61-2	148
RFK	JMK	1938	July	4	Attributed	Keynes-King's	KC/6/57	2095
RFK	JMK	1938	July	4	Dated letter	Keynes-King's	EJ/11/5/226-7	2096
RFK	JMK	1938	July	14	Dated letter	Keynes-King's	GTE/2/4/180	2097
RFK	JMK	1938	July	15	Dated letter	Keynes-King's	UA/14/2/252	147
RFK	JMK	1938	July	16	Dated letter	Kahn-King's	RFK/13/57/346	146
RFK	JMK	1938	July	16	Dated letter	Keynes-King's	KC/5/8/34	2098
RFK	JMK	1938	July	16	Dated letter	Keynes-King's	KC/5/8/32	
RFK	JMK	1938	July	16	Dated letter	Keynes-King's	KC/5/8/33	
JMK	RFK	1938	July	16	Dated letter	Kahn-King's	RFK/13/57/345	
JMK	RFK	1938	July	25	Dated letter	Kahn-King's	RFK/13/57/310-	
RFK	JMK	1938	August	1	Dated letter	Keynes-King's	KC/5/8/36-7	

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JMK	RFK	1938	August	4	Dated letter	Keynes—King's	KC/5/8/38	2099
JMK	RFK	1938	August	11	Dated letter	Keynes—King's	KC/5/8/39–41	2100
JMK	RFK	1938	August	11	Dated letter	Keynes—King's	KC/5/8/42	2101
JMK	RFK	1938	August	11	Dated letter	Keynes—King's	KC/5/8/52–3	2102
JMK	RFK	1938	August	16	Dated letter	Keynes—King's	GTE/2/3/180	438
JMK	RFK	1938	August	16	Dated letter	Keynes—King's	KC/5/8/54	2103
RFK	JMK	1938	August	17	Dated letter	Keynes—King's	KC/5/6/211	440
RFK	JMK	1938	August	17	Dated letter	Keynes—King's	KC/5/8/55–6	2104
RFK	JMK	1938	August	18	Dated letter	Keynes—King's	GTE/2/3/180	436
RFK	JMK	1938	August	18	Dated letter	Keynes—King's	KC/5/8/61	2105
RFK	JMK	1938	August	18	Dated letter	Keynes—King's	KC/5/8/76	2106
RFK	JMK	1938	August	18	Dated letter	Keynes—King's	KC/6/70–1	2107
RFK	JMK	1938	August	19	Dated letter	Keynes—King's	KC/5/8/57–8	2108
RFK	JMK	1938	August	21	Dated letter	Keynes—King's	UA/5/4/158–9	145
JMK	RFK	1938	August	22	Dated letter	Keynes—King's	KC/5/6/212	144
JMK	RFK	1938	August	22	Dated letter	Keynes—King's	KC/5/8/62–5	2109
JMK	RFK	1938	August	22	Dated letter	Keynes—King's	KC/5/8/77–8	2110
JMK	RFK	1938	August	22	Dated letter	Keynes—King's	KC/5/8/79–80	2111
JMK	RFK	1938	August	22	Dated letter	Keynes—King's	KC/6/69	2112
JMK	RFK	1938	August	23	Inferred from other sources	Keynes—King's	C0/11/301	143
JMK	RFK	1938	August	23	Dated letter	Keynes—King's	KC/5/8/59–60	2113
JMK	RFK	1938	August	23	Dated letter	Keynes—King's	KC/5/8/81–2	2114
JMK	RFK	1938	August	23	Dated letter	Kahn—King's	RFK/13/57/316–	142

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RFK	JMK	1938	August	24	Dated letter	Keynes-King's	CO/11/309-10	141
RFK	JMK	1938	August	24	Dated letter	Kahn-King's	RFK/13/57/337	140
JMK	RFK	1938	August	27	Dated letter	Kahn-King's	RFK/13/57/318-	139
JMK	RFK	1938	August	27	Dated letter	Kahn-King's	RFK/13/57/337	2203
RFK	JMK	1938	August	28	Dated letter	Keynes-King's	KC/5/8/83	2115
JMK	RFK	1938	August	31	Dated letter	Kahn-King's	RFK/13/57/320-1	138
RFK	JMK	1938	September	2	Dated letter	Keynes-King's	KC/5/8/48-9	2117
RFK	JMK	1938	September	2	Dated letter	Keynes-King's	KC/5/8/66-70	2116
JMK	RFK	1938	September	3	Dated letter	Kahn-King's	RFK/13/57/322-3	137
RFK	JMK	1938	September	4	Dated letter	Keynes-King's	KC/5/8/93	2118
JMK	RFK	1938	September	5	Dated letter	Keynes-King's	KC/5/8/50-1	2119
JMK	RFK	1938	September	5	Dated letter	Keynes-King's	KC/5/8/71-5	2120
JMK	RFK	1938	September	5	Dated letter	Keynes-King's	KC/5/8/91-2	2121
RFK	JMK	1938	September	5	Dated letter	Keynes-King's	KC/5/8/94	2122
RFK	JMK	1938	September	5	Dated letter	Keynes-King's	KC/5/8/97	2123
JMK	RFK	1938	September	5	Dated letter	Kahn-King's	RFK/13/57/324	136
RFK	JMK	1938	September	6	Dated letter	Keynes-King's	KC/5/8/100	2124
RFK	JMK	1938	September	6	Dated letter	Keynes-King's	KC/5/8/101-2	2125
RFK	JMK	1938	September	7	Dated letter	Keynes-King's	KC/5/8/103	2126
JMK	RFK	1938	September	20	Dated letter	Kahn-King's	RFK/13/57/328	135
RFK	JMK	1938	September	22	Dated letter	Keynes-King's	KC/5/8/106-7	2127
JMK	RFK	1938	September	26	Dated letter	Kahn-King's	RFK/13/57/326-7	134
JMK	RFK	1938	September	30	Dated letter	Keynes-King's	KC/5/8/124	2128
JMK	RFK	1938	September	30	Dated letter	Keynes-King's	KC/5/8/125	2131

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JMK	RFK	1938	September	30	Dated letter	Kahn–King’s	RFK/13/57/331–2	133
JMK	RFK	1938	October	1	Dated letter	Kahn–King’s	RFK/13/57/333	132
RFK	JMK	1938	October	2	Dated letter	Keynes–King’s	KC/5/8/124	2129
RFK	JMK	1938	October	3	Dated letter	Keynes–King’s	L/K/98–9	131
JMK	RFK	1938	October	4	Dated letter	Kahn–King’s	RFK/13/90/3/101–	2209
RFK	JMK	1938	October	07– dic	Dated letter	Keynes–King’s	L/K/106–7	130
JMK	RFK	1938	October	11	Dated letter	Kahn–King’s	RFK/13/57/334	129
RFK	JMK	1938	October	23	Dated letter	Keynes–King’s	KC/5/8/132–3	2130
RFK	JMK	1938	November		Attributed	Keynes–King’s	KC/5/8/95–6	2054
JMK	RFK	1938	November	10	Dated letter	Keynes–King’s	KC/5/8/134	2132
RFK	JMK	1938	November	14	Dated letter	Keynes–King’s	KC/5/8/137	2134
JMK	RFK	1938	November	21	Dated letter	Keynes–King’s	KC/5/8/138–9	2135
RFK	JMK	1938	November	26	Dated letter	Keynes–King’s	KC/5/8/134	2133
RFK	JMK	1938	November	26	Dated letter	Keynes–King’s	KC/5/8/136	2136
JMK	RFK	1938	December	3	Dated letter	Keynes–King’s	KC/5/8/155	2137
RFK	JMK	1938	December	13	Dated letter	Keynes–King’s	KC/5/8/150–2	2138
JMK	RFK	1938	December	14	Dated letter	Keynes–King’s	KC/5/8/153–4	2139
JMK	RFK	1938	December	17	Dated letter	Keynes–King’s	SE/2/7/101–4	128
JMK	RFK	1938	December	19	Dated letter	Keynes–King’s	SE/2/7/112	127
JMK	RFK	1939	January	12	Dated letter	Keynes–King’s	KC/5/9/11	2140
JMK	RFK	1939	January	12	Dated letter	Keynes–King’s	KC/5/9/28	2143
RFK	JMK	1939	January	12	Dated letter	Keynes–King’s	KC/5/9/29–30	2142
RFK	JMK	1939	January	13	Dated letter	Keynes–King’s	KC/5/9/11	2141
RFK	JMK	1939	January	15	Dated letter	Keynes–King’s	KC/5/9/28	2144

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RFK	JMK	1939	January	16	Dated letter	Keynes-King's	KC/5/9/34-6	2215
JMK	RFK	1939	January	18	Dated letter	Keynes-King's	KC/5/9/31-3	2145
RFK	JMK	1939	January	19	Dated letter	Keynes-King's	KC/5/8/156	2146
JMK	RFK	1939	January	23	Dated letter	Keynes-King's	KC/5/8/157-8	2147
JMK	RFK	1939	January	23	Dated letter	Keynes-King's	KC/5/8/159-61	2148
RFK	JMK	1939	January	27	Dated letter	Keynes-King's	KC/5/9/39	2149
JMK	RFK	1939	February	21	Dated letter	Keynes-King's	BM/3/86-7	126
JMK	RFK	1939	March	6	Dated letter	Kahn-King's	RFK/13/57/401-2	125
JMK	RFK	1939	March	14	Dated letter	Kahn-King's	RFK/13/57/403-5	124
JMK	RFK	1939	March	15	Dated letter	Keynes-King's	L/K/108-9	12
JMK	RFK	1939	March	23	Dated letter	Kahn-King's	RFK/13/57/406-7	122
JMK	RFK	1939	March	25	Dated letter	Kahn-King's	RFK/13/57/408-9	121
JMK	RFK	1939	April	6	Dated letter	Keynes-King's	PP/45/255/11-12	120
JMK	RFK	1939	April	11	Dated letter	Kahn-King's	RFK/13/57/410-	119
RFK	JMK	1939	April	17	Dated letter	Keynes-King's	L/K/110-12	118
RFK	JMK	1939	April	18	Dated letter	Keynes-King's	PP/45/255/10	2150
JMK	RFK	1939	April	20	Dated letter	Keynes-King's	KC/5/9/69-70	2151
JMK	RFK	1939	April	20	Dated letter	Keynes-King's	KC/5/9/71-3	435
RFK	JMK	1939	April	21	Dated letter	Keynes-King's	PP/45/255/22	190
JMK	RFK	1939	April	22	Dated letter	Keynes-King's	KC/5/9/74-5	2152
RFK	JMK	1939	May	12	Dated letter	Keynes-King's	KC/5/9/76	2153
RFK	JMK	1939	May	18	Dated letter	Keynes-King's	KC/5/9/86	2154
JMK	RFK	1939	May	22	Dated letter	Kahn-King's	KC/5/9/87-8	2154
							RFK/5/1/109-11	2217
							Moggridge 1992: 617,	
							Moggridge 1992: 553,	
							(E)	

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JMK	RFK	1939	May	23	Dated letter	Kahn-King's	RFK/13/57/415	117
RFK	JMK	1939	May	29	Dated letter	Keynes-King's	A/39/85	433
JMK	RFK	1939	May	29	Dated letter	Keynes-King's	A/39/85	434
JMK	RFK	1939	June	17	Dated letter	Keynes-King's	UA/5/4/319	114
RFK	JMK	1939	June	20	Dated letter	Keynes-King's	KC/5/9/116	2155
RFK	JMK	1939	June	27	Dated letter	Keynes-King's	UA/5/4/386-7	116
JMK	RFK	1939	June	30	Dated letter	Keynes-King's	KC/5/9/125	2156
JMK	RFK	1939	June	30	Dated letter	Keynes-King's	KC/5/9/126-7	2157
JMK	RFK	1939	June	30	Dated letter	Keynes-King's	KC/5/9/128-9	2158
JMK	RFK	1939	June	30	Dated letter	Kahn-King's	RFK/13/57/416	115
JMK	RFK	1939	July		Attributed	Kahn-King's	RFK/5/1/142-4	2218
RFK	JMK	1939	July	2	Dated letter	Kahn-King's	RFK/13/57/416	2204
JMK	RFK	1939	July	4	Dated letter	Kahn-King's	KC/5/9/117	2159
RFK	JMK	1939	July	6	Dated letter	Keynes-King's	UA/5/4/319	113
RFK	JMK	1939	July	10	Dated letter	Keynes-King's	KC/5/9/130	2160
RFK	JMK	1939	July	10	Dated letter	Keynes-King's	KC/5/9/131	2161
JMK	RFK	1939	July	11	Dated letter	Keynes-King's	SE/2/7/122	112
JMK	RFK	1939	July	12	Dated letter	Kahn-King's	RFK/13/57/417-	111
RFK	JMK	1939	July	13	Dated letter	Keynes-King's	KC/5/9/134-5	2162
RFK	JMK	1939	July	13	Dated letter	Keynes-King's	SE/2/7/121	110
RFK	JMK	1939	July	17	Dated letter	Keynes-King's	KC/5/9/136-7	2163
RFK	JMK	1939	July	17	Dated letter	Keynes-King's	KC/5/9/144-5	2164
RFK	JMK	1939	July	18	Dated letter	Keynes-King's	KC/5/9/146-51	2165
RFK	JMK	1939	July	18	Dated letter	Keynes-King's	KC/5/9/152-3	2166
JMK	RFK	1939	July	20	Dated letter	Kahn-King's	RFK/13/57/416	2205

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JMK	RFK	1939	July	22	Dated letter	Keynes-King's	KC/5/9/142-3	2167
JMK	RFK	1939	July	27	Dated letter	Kahn-King's	RFK/13/57/419-	Moggridge 1992: 621, (E)
						Keynes-King's	CO/11/408-9	
RFK	JMK	1939	July	28	Dated letter	Keynes-King's	CO/11/410-11	107
RFK	JMK	1939	July	28	Dated letter	Keynes-King's	KC/5/9/154-6	2168
JMK	RFK	1939	July	28	Dated letter	Kahn-King's	RFK/13/57/421-2	108
JMK	RFK	1939	July	30	Dated letter	Keynes-King's	KC/5/9/158-61	2169
RFK	JMK	1939	August	3	Dated letter	Keynes-King's	KC/5/9/157	2170
JMK	RFK	1939	August	4	Dated letter	Keynes-King's	CO/11/412-28	106
JMK	RFK	1939	August	4	Dated letter	Kahn-King's	RFK/13/57/423-4	105
RFK	JMK	1939	August	6	Dated letter	Keynes-King's	CO/11/429	104
RFK	JMK	1939	August	7	Dated letter	Keynes-King's	KC/5/9/164-5	2171
RFK	JMK	1939	August	9	Dated letter	Keynes-King's	KC/5/9/170	2172
RFK	JMK	1939	August	10	Dated letter	Keynes-King's	CO/11/430	103
RFK	JMK	1939	August	10	Dated letter	Keynes-King's	L/K/115	102
RFK	JMK	1939	August	10	Dated letter	Kahn-King's	RFK/13/57/425-6	101
JMK	RFK	1939	August	11	Dated letter	Keynes-King's	KC/5/9/166-9	2173
JMK	RFK	1939	August	11	Dated letter	Keynes-King's	KC/5/9/171	2174
JMK	RFK	1939	August	11	Dated letter	Kahn-King's	RFK/13/57/427-9	100
RFK	JMK	1939	August	13	Dated letter	Keynes-King's	L/K/116-17	99
JMK	RFK	1939	August	14	Dated letter	Keynes-King's	L/K/118-20	CWK XXII: 3, (E)
						Kahn-King's	RFK/13/57/430-2	
RFK	JMK	1939	August	15	Dated letter	Keynes-King's	KC/5/9/178-9	2175
RFK	JMK	1939	August	25	Dated letter	Keynes-King's	KC/5/9/185	2177

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RFK	JMK	1939	August	25	Dated letter	Keynes–King’s	KC/5/9/186–7	2176
RFK	JMK	1939	August	25	Dated letter	Keynes–King’s	L/K/121	96
JMK	RFK	1939	August	25	Dated letter	Kahn–King’s	RFK/13/57/433	97
RFK	JMK	1939	September		Attributed	Keynes–King’s	KC/5/9/202	2212
JMK	RFK	1939	September	1	Dated letter	Kahn–King’s	RFK/13/57/434	95
RFK	JMK	1939	September	6	Dated letter	Keynes–King’s	KC/6/73	2178
RFK	JMK	1939	September	7	Dated letter	Keynes–King’s	KC/5/9/200	2179
JMK	RFK	1939	September	15	Dated letter	Kahn–King’s	RFK/13/57/435	94
JMK	RFK	1939	October	3	Attributed	Keynes–King’s	KC/5/9/202	2213
RFK	JMK	1939	October	18	Dated letter	Keynes–King’s	KC/5/9/205	2180
RFK	JMK	1939	November	5	Dated letter	Keynes–King’s	KC/5/9/206	2181
RFK	JMK	1939	November	15	Dated letter	Keynes–King’s	KC/5/9/217	2182
RFK	JMK	1939	November	15	Dated letter	Keynes–King’s	KC/5/9/219	2050
RFK	JMK	1939	November	16	Dated letter	Keynes–King’s	KC/5/9/218	2183
RFK	JMK	1939	November	19	Dated letter	Keynes–King’s	KC/5/9/238–9	2184
JMK	RFK	1939	November	19	Dated letter	Keynes–King’s	KC/5/9/240	2185
RFK	JMK	1939	November	19	Dated letter	Keynes–King’s	KC/5/9/241	2186
RFK	JMK	1939	November	30	Dated letter	Keynes–King’s	HP/2/20	431
RFK	JMK	1939	December	17	Dated letter	Keynes–King’s	L/K/122–4	93
RFK	JMK	1939	December	24	Dated letter	Keynes–King’s	KC/5/9/291	2187
RFK	JMK	1940	March	14	Dated letter	Keynes–King’s	W/3/56	92
JMK	RFK	1940	March	16	Dated letter	Kahn–King’s	RFK/13/57/436–8	91
JMK	RFK	1940	April	10	Dated letter	Keynes–King’s	W/3/57–9	90
JMK	RFK	1940	May	9	Dated letter	Kahn–King’s	RFK/13/57/439–	89
							RFK/13/57/441–2	
								Skidelsky 2000: 47, (E)
								CWK XXII: 157–8, (E)
								Skidelsky 2000: 76, (E)

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RFK	JMK	1940	May	10	Dated letter	Keynes-King's	UA/14/2/293-4	88
RFK	JMK	1940	May	20	Dated letter	Keynes-King's	UA/14/2/ 296-7	87
JMK	RFK	1940	May	22	Dated letter	Keynes-King's	W/3/182	86
RFK	JMK	1940	May	24	Dated letter	Kahn-King's	RFK/13/57/443-	85
JMK	RFK	1940	May	26	Dated letter	Keynes-King's	W/3/231-2	84
JMK	RFK	1940	May	27	Dated letter	Keynes-King's	W/3/246-8	83
RFK	JMK	1940	May	30	Dated letter	Kahn-King's	RFK/13/57/457-9	82
JMK	RFK	1940	June	2	Dated letter	Keynes-King's	W/3/255-7	81
RFK	JMK	1940	June	3	Dated letter	Kahn-King's	RFK/13/57/460-1	80
RFK	JMK	1940	June	28	Dated letter	Keynes-King's	L/K/125-6	79
JMK	RFK	1940	June	29	Dated letter	Keynes-King's	A/40/10-12	78
RFK	JMK	1940	June	30	Dated letter	Keynes-King's	A/40/13-14	77
RFK	JMK	1940	July	2	Dated letter	Kahn-King's	W/3/299-301	76
JMK	RFK	1940	July	3	Dated letter	Keynes-King's	RFK/13/57/465-6	75
RFK	JMK	1940	July	9	Dated letter	Keynes-King's	W/3/302-3	74
JMK	RFK	1940	July	11	Dated letter	Kahn-King's	W/3/309	73
RFK	JMK	1940	September	25	Dated letter	Keynes-King's	RFK/13/57/467-8	72
RFK	JMK	1940	November	4	Dated letter	Keynes-King's	W/3/310-11	71
							UA/14/2/306	
							RFK/13/57/469-	
							L/K/127-8	
							L/K/129	
							Marcuzzo 1998: 8, (E)	
							Skidelsky 2000: 76, (E)	

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JMK	RFK	1941	March	4	Dated letter	Kahn–King's	RFK/13/57/471	70
JMK	RFK	1941	April	21	Dated letter	Keynes–King's	L/K/130A–B	69
RFK	JMK	1941	April	22	Dated letter	Keynes–King's	L/K/131	68
JMK	RFK	1941	April	24	Dated letter	Keynes–King's	L/K/132–4	67
RFK	JMK	1941	August	15	Dated letter	Keynes–King's	KC/5/10/38–9	2188
RFK	JMK	1941	August	19	Dated letter	Keynes–King's	L/K/135	66
RFK	JMK	1941	August	19	Dated letter	Keynes–King's	L/K/136–7	65
JMK	RFK	1941	August	21	Dated letter	Keynes–King's	L/K/138–9	63
RFK	JMK	1941	August	21	Dated letter	Keynes–King's	L/K/140–1	64
JMK	RFK	1941	August	24	Dated letter	Keynes–King's	L/K/142–3	62
JMK	RFK	1941	September	9	Dated letter	Kahn–King's	RFK/13/57/472–3	61
RFK	JMK	1941	September	15	Dated letter	Keynes–King's	L/K/144–6	60
JMK	RFK	1941	October	31	Dated letter	Keynes–King's	L/K/147–57	59
JMK	RFK	1941	October	31	Dated letter	Keynes–King's	L/K/158–9	58
JMK	RFK	1941	December	2	Dated letter	Kahn–King's	RFK/13/57/474	57
						Keynes–King's	L/K/160	
RFK	JMK	1941	December	15	Dated letter	Not found in archives		185
RFK	JMK	1941	December	17	Dated letter	Keynes–King's	L/K/161–2	56
RFK	JMK	1942	January	10	Dated letter	Keynes–King's	L/K/170	55
JMK	RFK	1942	January	12	Dated letter	Keynes–King's	L/K/163–7	54
JMK	RFK	1942	January	21	Dated letter	Keynes–King's	L/K/168	429
RFK	JMK	1942	February	17	Dated letter	Keynes–King's	L/K/171	53
RFK	JMK	1942	March	30	Dated letter	Keynes–King's	L/K/174–6	52
RFK	JMK	1942	April	9	Dated letter	Keynes–King's	L/K/177	51
							CWK XXIII: 318	185
								56
								55
							Skidelsky 2000: 164, (E)	54
								429
								53
								52
								51

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JMK	RFK	1942	May	11	Dated letter	Keynes-King's	L/K/178-83	CWK XXIII: 319-20, 50
JMK	RFK	1942	May	11	Dated letter	Keynes-King's	L/K/184-7	CWK XXV: 143-4, (E)
JMK	RFK	1942	May	15	Dated letter	Keynes-King's	L/42/69	48
RFK	JMK	1942	May	29	Dated letter	Keynes-King's	L/K/188-90	47
JMK	RFK	1942	June	16	Dated letter	Keynes-King's	L/K/191-2	46
JMK	RFK	1942	June	16	Dated letter	Keynes-King's	L/K/193-5	45
JMK	RFK	1942	June	19	Dated letter	Keynes-King's	L/K/196-7	44
JMK	RFK	1942	June	19	Dated letter	Keynes-King's	L/K/198-201	43
RFK	JMK	1942	August	16	Dated letter	Keynes-King's	L/K/202	42
JMK	RFK	1942	August	28	Dated letter	Keynes-King's	L/K/203-8	Skidelsky 2000: 150, (E)
RFK	JMK	1942	September	14	Dated letter	Keynes-King's	L/K/209-12	Skidelsky 2000: 247, (E)
RFK	JMK	1942	September	15	Dated letter	Keynes-King's	L/K/213-14	40
RFK	JMK	1942	September	17	Dated letter	Keynes-King's	L/K/215	39
JMK	RFK	1942	September	22	Dated letter	Keynes-King's	L/K/216-18	38
RFK	JMK	1942	September	23	Dated letter	Keynes-King's	L/K/219-20	37
RFK	JMK	1942	October	13	Dated letter	Keynes-King's	L/K/221-2	36
JMK	RFK	1942	October	16	Dated letter	Keynes-King's	L/K/223-5	35
RFK	JMK	1942	October	28	Dated letter	Keynes-King's	L/K/226-8	34
RFK	JMK	1942	November	1	Dated letter	Keynes-King's	L/K/229-34	33
RFK	JMK	1942	November	7	Dated letter	Keynes-King's	L/K/235-6	32
JMK	RFK	1942	November	13	Dated letter	Keynes-King's	L/K/237-40	Skidelsky 2000: 164, (E)
RFK	JMK	1942	November	30	Dated letter	Keynes-King's	L/K/241-2	Skidelsky 2000: 248, (E)
JMK	RFK	1943	April	7	Dated letter	Kahn-King's	RFK/13/57/477-8	29
RFK	JMK	1943	May	13	Dated letter	Keynes-King's	L/K/243-5	28
								27

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RFK	JMK	1943	June	1	Attributed	Keynes–King’s	PC/1/9/49–50	26
JMK	RFK	1943	June	3	Dated letter	Keynes–King’s	PC/1/9/55	427
RFK	JMK	1943	December	6	Dated letter	Keynes–King’s	L/K/265–8	25
JMK	RFK	1943	December	8	Dated letter	Kahn–King’s	RFK/13/57/479	24
						Keynes–King’s	L/K/269	
RFK	JMK	1943	December	31	Dated letter	Keynes–King’s	KC/5/10/70	2216
JMK	RFK	1944	January	10	Dated letter	Kahn–King’s	RFK/13/57/480–1	23
JMK	RFK	1944	January	13	Dated letter	Not found in archives	CWK XXVI: 283–4, (E)	22
RFK	JMK	1944	February	12	Dated letter	Keynes–King’s	L/K/270–2	21
RFK	JMK	1944	February	21	Dated letter	Kahn–King’s	RFK/13/57/482	20
JMK	RFK	1944	February	22	Dated letter	Keynes–King’s	L/K/273–4	19
						Keynes–King’s	L/K/275–7	
RFK	JMK	1944	March	7	Dated letter	Keynes–King’s	L/K/278	18
						Kahn–King’s	RFK/13/57/485	
JMK	RFK	1944	March	9	Dated letter	Keynes–King’s	L/K/279	17
JMK	RFK	1944	April	3	Dated letter	Kahn–King’s	RFK/13/57/483–4	16
RFK	JMK	1944	April	12	Dated letter	Keynes–King’s	L/K/280–310	15
JMK	RFK	1944	April	15	Dated letter	Kahn–King’s	RFK/13/57/486–7	14
						Kahn–King’s	RFK/13/57/495–6	
JMK	RFK	1944	April	17	Dated letter	Kahn–King’s	RFK/13/57/488–9	13
						Keynes–King’s	L/K/312–13	
JMK	RFK	1944	April	24	Dated letter	Kahn–King’s	RFK/13/57/490–1	12
RFK	JMK	1944	April	25	Dated letter	Kahn–King’s	RFK/13/57/492–4	11
RFK	JMK	1944	May	31	Dated letter	Keynes–King’s	L/K/314–15	10

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JMK	RFK	1944	June	1	Dated letter	Kahn-King's	RFK/13/57/500-1	9
RFK	JMK	1944	June	2	Dated letter	Kahn-King's	RFK/13/57/498-9	8
RFK	JMK	1944	November	9	Dated letter	Keynes-King's	L/K/316-17	7
RFK	JMK	1945	February	27	Dated letter	Kahn-King's	RFK/13/57/497	2214
RFK	JMK	1945	May	24	Dated letter	Keynes-King's	L/K/318-19	2189
RFK	JMK	1945	May	24	Dated letter	Keynes-King's	KC/5/10/88-90	2190
JMK	RFK	1945	May	27	Dated letter	Keynes-King's	KC/5/10/91-2	2191
JMK	RFK	1945	November	2	Dated letter	Keynes-King's	KC/5/10/93-4	6
JMK	RFK	1945	November	23	Dated letter	Kahn-King's	KC/5/10/95-7	5
RFK	JMK	1945	December	31	Dated letter	Kahn-King's	RFK/13/57/516-7	4
JMK	RFK	1946	February	2	Dated letter	Keynes-King's	RFK/13/57/518-9	3
RFK	JMK	1946	February	24	Dated letter	Keynes-King's	L/K/320	2
JMK	RFK	1946	March	13	Dated letter	Keynes-King's	L/K/324-5	1
							KC/5/10/147-8	
							L/K/326-7	
							L/K/328-9	
							Skidelsky 2000: 437, (E)	
							CWK XXVI: 217, (E)	

CHAPTER SEVEN

FIGHTING FOR KEYNESIAN REVOLUTION: THE CORRESPONDENCE BETWEEN KEYNES AND J. ROBINSON

MARIA CRISTINA MARCUZZO
AND CLAUDIO SARDONI

1. An Overview of the Pre-war Correspondence

There are 140 letters between J. Robinson and John Maynard Keynes, running from 1932 to 1945, 82 of which published, mostly in excerpts (see Table 7.1). The extant correspondence begins in April 1932 and ends in April 1945.

We do not know exactly when Keynes and Robinson met, but it is likely that they made acquaintance when she came back from India a few months ahead of Austin in October 1928 and was looking for somewhere for them to settle down in Cambridge. J. Robinson already had strong connections in Cambridge as a former Girton student and member of a family closely associated with Cambridge on both her mother's and her father's side.

Her involvement in academic life started when she was invited by the Faculty of Economics and Politics to give eight lectures in the Michaelmas Term of 1931 based on the book which would become *The Economics of Imperfect Competition*. In the previous two years she had attended Sraffa's lecture course, supervised a few pupils and strengthened her acquaintance with Kahn both personally and professionally.

She was a member of the Circus, the informal discussion group debating the issues presented by Keynes in his *Treatise on Money*; the group met between late 1930 and the spring of 1931, and proved very active in their deliberations. In fact, the correspondence between Keynes and J. Robinson began over an article of hers, "A parable on saving and

investment” (J. Robinson 1933c), in which she challenged the assumption behind the argument in the *Treatise*, namely that an excess of savings over investment leads to a fall in the price of consumption goods. In May 1932, together with Kahn and Austin Robinson, she wrote a “Manifesto”¹ debating a point raised by Keynes in his lectures about the mechanism leading to an increase in output following upon an increase in investment.

In October of the same year Keynes accepted an article by her for the *Economic Journal* (J. Robinson 1932a), praising it as “excellent – most beautiful and lucid” (letter 1883, 16 October 1932); in contrast, her *Economics is a Serious Subject. The Apologia of an Economist to the Mathematician, the Scientist and the Plain Man* (J. Robinson 1932b) did not meet with much favour on the part of Keynes (letter 1783, 21 October 1932).

In her pamphlet she dealt with the questions raised in the discussions over the validity of the Marshallian theory with a more general scope in mind, defending the methodology of making unrealistic assumptions against the charge of the mathematician, who would defend logic against realism, and the charge of the plain man, who would do exactly the opposite (see Harcourt 1990). The pamphlet is dedicated to “the fundamental pessimist”. In the original manuscript the place of the anonymous dedication was occupied by the following legend: “To Piero Sraffa, whose introduction of pessimism into Cambridge has made Economics a Serious Subject”.² The pamphlet was in fact the methodological manifesto of the book J. Robinson had been writing since the spring of 1931 (letter 748 from JVR to RFK, 30 March 1931), and which was published in 1933 under the title of *The Economics of Imperfect Competition* (J. Robinson 1933a).

In November 1932 Keynes acted as reader of the manuscript of her book for Macmillan and, although his report was not entirely flattering (CWK XII: 865–8), he recommended publication. This opened up a new phase in the relationship between Keynes and J. Robinson, as a result of much manoeuvring by Kahn, who was equally involved in assisting Robinson in the writing of the *Economics of Imperfect Competition* and Keynes in what would become the *General Theory* (Marcuzzo 1996; 2002; see Rosselli 2005).

Early in 1933, from America Kahn urged her to pursue her involvement in Keynes’s work:

¹ They signed it as “The Manifesto of the Trumpington Street School” from the name of the street where Austin and Joan lived in Cambridge.

² Sraffa reacted with some uneasiness (see Rosselli and Besomi 2005: 313).

Naturally, you cannot raise the point, but if Maynard hints that he would like you to look at his stuff, I do wish you would. I must confess that I am a bit appalled at the prospect of having the sole responsibility thrust on to me after my return.

(letter 574 from RFK to JVR, 2 March 1933)

A few months later she was able to write “a kind of interim report on how far the Keynesians had got by that time” (J. Robinson 1951: viii); in that article – published in October 1933 under the title “The theory of money and the analysis of output” – she repeated her criticism of the “widow’s cruse” reasoning in the *Treatise* as being valid only under the assumption that “an increase in demand for consumption goods leads to no increase in their supply” (J. Robinson [1933b] 1951: 55).

By 1934 J. Robinson was relying ever more on Keynes’s advice:

I am expecting to produce a baby in the Summer. I do not think myself that this ought to be considered relevant to the question of lecturing – but I quite see that there is another point of view. I haven’t told any of our colleagues except Kahn and Piero. Do you think it might be left to dawn on the other gradually or ought it to be mentioned when my lectures are discussed?

(letter 1787, 26 March 1934)

As far as the lectures were concerned, she wanted to present a “grand scheme” (letter 1787, 26 March 1934) illustrating historical episodes and controversial theoretical issues. Keynes invited her to use caution (letter 1788, 29 March 1934), but supported her wholeheartedly, and later on even stepped in to prevent her proposal to give a course on Money for two terms from being turned down (JMK to C.R. Fay, 5 March 1935, JMK papers, UA/14.2) (see Sanfilippo 2005: 69; Carabelli 2005: 208–9; Naldi 2005a: 339).

When, during the summer of 1934, the building blocks of the *General Theory* were firmly laid out, J. Robinson was so confident in her role as one of Keynes’s interlocutors that she could write to Kahn: “[...] of course I am absolutely full of views about the *Treatise*. Would Maynard like me to write him a Preface for the new work showing in what respects his ideas have altered?” (letter 645 from JVR to RFK, 5–6 September 1934).

It was in fact in 1934 that a change occurred in the personal relationship between J. Robinson and Keynes. She wrote to Kahn: “I see Maynard signed ‘yours faithfully’ in type and crossed it out in ink so I can’t really complain” (letter 630 from JVR to RFK, 15 August 1934).

In June 1935 J. Robinson was asked, together with Harrod, Hawtrey and Kahn, to read the second set of proofs of the *General Theory*, and

Keynes held her comments in great consideration. In that same June of 1935 Keynes sent J. Robinson his correspondence with Hawtrey for her to read and offer him her advice; in October he praised a paper she presented at the Political Economy Club as “crystal clear and extremely interesting” (letter 1800, 24 October 1935, CWK XII: 652).

By 1935 J. Robinson was anxious to explain, popularise and extend the results of the *General Theory*, as we shall see in more detail in the next section. She started with the concept of “disguised unemployment”, dedicating to the topic an article which Keynes accepted for the *Economic Journal* (J. Robinson 1936a). In correspondence with her, he pointed out that she had not clearly stated the conditions under which employment can be increased without “any change in either the propensity to consume or the inducement to invest” (letter 1804, 3 March 1936). To which she replied:

I am sure you are right that the formal treatment of disguised unemployment wants to be cleared up. I was trying not to be high brow in my paper, but I think with the assistance of your notes I can put this point fairly simply.

(letter 1805, 4 March 1936)

In 1937 she published two books following in Keynes’s footsteps. The first, *Essays in the Theory of Employment* (J. Robinson 1937a), drew “riders from the main theory” (J. Robinson [1977] 1979: 185–6), the second, *Introduction to the Theory of Employment* (J. Robinson 1937b), was meant to be “a told to the children version of *The General Theory*”, as she put it in a letter to him (letter 1825, 18 November 1936, CWK XXIX: 184–5).

As far as the *Essays in the Theory of Employment* were concerned, she later recalled that “Keynes read the draft and I cut anything that I could not persuade him was correct” (J. Robinson 1973b: 174). In fact Keynes read the proofs during his trip to Russia, made detailed comments and raised doubts on the soundness of certain conclusions. In particular he was very critical of her article on the foreign exchanges, discussion of which – as we shall see – went on throughout November.

However, in the end he wrote to her: “Your fierceness may quite possibly land you in trouble in some quarters [...] I consider the book as a whole a bit uneven [...] But the general effect is splendid, full of originality and interest” (letter 1822, 12 November 1936, CWK XIV: 147). To which she replied: “I am more grateful than it would be decent to say for all the trouble you have taken, and I am most delighted to have

your approval in general for the book” (letter 1824, 14 November 1936, CWK XIV: 148).

As for her second book, Keynes did not initially welcome the idea of a popular version of the *General Theory* with great enthusiasm, as he was “against hurry and in favour of gestation” (letter 1827, 2 December 1936, CWK XXIX: 185–6). But his reaction did not dissuade her. In March 1937 (letter 1829, 6 March 1937) she announced to him that she was revising it and Keynes (letter 1830, 25 March 1937, CWK XIV: 149) again fought shy of the idea, letting her know that he was thinking of presenting the *General Theory* in a different way. She defended her project as a teaching device for non-first-class students, in a light-hearted tone:

I do not regard my proposed book as of the smallest importance (either way) in the development of ideas. With your consent I will get on with it. I am having a baby in October, so this seems suitable light work for the summer.

(letter 1832, 22 April 1937)

When the *Introduction to the Theory of Employment* came out Keynes seems to have welcomed it, writing to her: “You have been very successful, I think, in simplifying and have skated round the complications beautifully” (letter 1842, 20 November 1937).

In August 1937 she was asked to comment on Keynes’s reply to Pigou’s article on real and money wages, which Robertson had accepted for the *Economic Journal* during Keynes’s illness (see Sanfilippo 2005: 70; Sardoni 2005: 219–20; Naldi 2005b: 378–82). The autumn of the same year saw discussion of some import on innovations prompted by a note J. Robinson had written in response to criticism raised by Harrod (see below: section 3). Another exchange started in March 1938 on an article by Abba Lerner that met with Keynes’s liking (Lerner 1938). Since Robinson was working on similar topics she felt that there was no point in publishing her work, but Keynes wanted it for the *Economic Journal* and it eventually came out in June (J. Robinson 1938b) (letters 1843–1846, 6–30 March 1938).

The topic is interesting because it is connected with her strong feelings in the argument Keynes was having with Robertson regarding the issue of “finance” constraint on investment. She wrote to him:

D.H.R. seems to grow more and more perverse. I can’t make any sense of this at all. He seems to be wandering vaguely about in a featureless wilderness. I think your reply would be more telling if you put in the working a bit more. Abandon D.H.R. as hopeless and write as tho’ for a

2nd year man who is hoping to get a II.2. You want the reader, emerging dazed from D.H.R., to feel that you represent simplicity and commonsense.

(letter 1845, 23 March 1938, CWK XXIX: 169)

The difficult situation between Keynes and his circle on the one hand and Robertson on the other is reflected in the exchange of the summer of 1938. In a letter J. Robinson complained about a sentence Robertson had included in an article of his – eventually published in the September issue of the *Economic Journal* – to the effect of accusing her of “affirming without qualification that the desire to save does not promote investment” (letter 1847, 30 July 1938, CWK XXIX: 181–2). Keynes agreed with her

that it would be much better if Dennis were to leave out that unprovoked reference to you. I do not see any possible object in attributing to you an opinion which you certainly do not hold. I will see what I can do about it.

(letter 1849, 3 August 1938)

In the end Keynes succeeded in getting Robertson to withdraw his comment and for the time being the hostilities between Robertson and the “Keynesians” came to a halt (see Sanfilippo 2005: 71–2).

Next we discuss in more detail some of the issues referred to above, with regard first to the making of the *General Theory* and then Robinson’s endeavours to popularise and extend its main results.

2. Towards the *General Theory*

In the first exchange of this correspondence, in April 1932, Keynes defended himself from the charge brought against him in J. Robinson’s article on saving and investment of having made the assumption of constant output in the *Treatise*, with the following argument:

in my *Treatise* itself, I have long discussions with 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. Surely one must be allowed at a particular stage of one’s argument to make simplifying assumptions of this kind; particularly when, as you agree, the assumption in question does not make a very vital difference to the whole character of the argument.

(letter 1772, 14 April 1932, CWK XIII: 269–70)

A few months later, as a consequence of criticisms and comments coming from Kahn, Sraffa, Robertson and indeed J. Robinson, Keynes changed his mind on whether the assumption of constant output made “a very vital difference”, and his thoughts took a turn in that direction.

A crucial step in persuading Keynes to embrace a different approach was successfully made in May 1932. In the spring of 1932, Kahn and Austin and Joan Robinson had followed Keynes's lessons, eventually signing a "Manifesto" on one aspect of Keynes's theory, presenting an "alternative" (as Keynes put it) or "complementary" (as J. Robinson had it in her subsequent correspondence) solution. The point under discussion was Keynes's "proof" that the variation in investment (ΔI) had the same sign as the variation in output (ΔO). Keynes's proof rests on two initial hypotheses: (1) $\Delta E'$ (the variation in the entrepreneurs' earnings, i.e. the monetary value deriving from sales of the current output of goods and services) has the same sign as ΔO ; (2) $\Delta E' - \Delta F$ (ΔF is the change in spending, and thus the difference between the change in the entrepreneurs' earnings and the change in spending accounts for the change in their savings) has the same sign as $\Delta E'$.

Since $\Delta E' - \Delta F = \Delta I$, it follows that ΔI and ΔO have the same sign.

The objection raised here by the Manifesto authors was that condition (2) – that spending does not rise as much as income – actually demonstrates not that the variation in investment has the same sign as the variation in output, but ensures

that there shall be stable equilibrium. If expenditure were to increase by more than income, equilibrium would be unstable and any small increment in investment would cause output to rise either to infinity or to a point where condition (b) [i.e. (2)] came into operation, whichever happened first.

(CWK XXIX: 43)

Moreover, the Manifesto authors went on, were an increase in spending to bring about a considerable increase in the costs of production, then output would fall instead of rising and condition (1) would no longer apply. It was at this point that an alternative to Keynes's proof was proposed:

The problem seems to us to be susceptible to treatment by method of Supply and Demand. For the truth of the proposition that an increase in I will lead to an increase in O , the two following conditions appear to us to be sufficient, though not necessary:

- a) That an increase in I will lead *per se* to a rise in the demand for consumption goods, i.e. that the demand for consumption goods on the part of the producers of capital goods will increase when the value of their output increases;
- b) That the conditions of supply of consumption goods are not affected by change in I .

When these conditions are fulfilled, an increase in I will lead to a rise in the demand curve for consumption goods without raising the supply curve, and so must lead to an increase of output of consumption goods, and *a fortiori* to an increase in total output.

(letter 1774, May 1932, CWK XXIX: 43–4)

Keynes's resistance "to scrap all my present half-forged weapons" (letter 1779, 9 May 1932, CWK XIII: 378), as he wrote to Robinson in the correspondence on the Manifesto, was short lived. In fact, the lectures of autumn 1932 showed Keynes taking up the "method" of the Trumpington Street School, using the expression "demand as a whole relatively to supply as a whole" (CWK XXIX: 53).

In the summer of 1933, Keynes informed J. Robinson that, after "a pregnant conversation with Kahn", he was going to adopt a new technique of expression for the *General Theory* (letter 1785, 17 July 1933); in another he elaborated on what should be understood by the concepts of full employment and unemployment. There Keynes argued that

there is full employment if employment is available to everyone wanting it at a wage equal in terms of product to the marginal efficiency in terms of product of the quantity of labour thus offering itself. In other words, on the normal assumption of the classical theory that real wages are equal to the marginal efficiency of labour in terms of product, then there is always full employment. Unemployment of the type we are considering occurs because it is not true, as Pigou, I think, assumes, that if a man can by his labour turn two grains of wheat into three over a production period, that it will therefore pay to employ him at a real wage of a grain of wheat.

(letter 1786, 25 August 1933)

As we have seen, J. Robinson was involved in the proof-reading of *General Theory*. Keynes sent her the first batch between 6 and 12 June 1935. By the 16 June she had responded with detailed comments, mainly suggesting stylistic changes or calling for clarification of certain points. Three days later she sent him a note on liquidity "which I take to be what you mean" (letter 1796, 19 June 1935, CWK XIII: 246–50), in which in fact she summarised his main point. In September Keynes sent a new set of proofs, informing her that Book I and most of Book II had been re-written during the summer. Once again, just four days later, she was ready to give him her comments, which unfortunately are not extant. Finally, in December, three days before the final version was delivered to the printer, he sent it to her with the following covering letter:

I owe you a great deal of gratitude for taking so much trouble over my proofs. Even the last gleaning was very useful and you spotted several

misprints which I had overlooked. Indeed I'd give you high percentage marks for that; for the number found by me that you missed was extremely small. The book is now finished, all but preliminary matter, last sheets are index which still have to be passed for press, and it is being printed off. I think that it should be published very early in February. As you guessed author's melancholy did come on at the last. In the final proof reading it seemed so flat and stale. But you have cheered me and so does Kahn, who has been here for Christmas.

(letter 1803, 27 December 1935)

3. Extending the *General Theory*

In this section we will examine the extensions of the *General Theory* which Robinson was busy pursuing in 1935–37. They can be grouped under three main headings: the determination of the level of employment in the long period, in (1) an open economy and when the effects of (2) innovations and (3) technical progress are taken into account.

Her first attempt is contained in an article, completed before publication of the *General Theory*, originally published in *Zeitschrift für Nationalökonomie* (J. Robinson 1936b). Initially Keynes did not object to the exercise of extending his results to the long period, although he had some reservations about her use of elasticity of substitution, as we will see. However, when the issue of the long period came up again, in 1941, he commented on a manuscript she had sent to him with a sharp note:

Broadly speaking, you are taking the view that profits, and indeed interest, generally, is, in the last analysis, an uncertainty phenomenon, – a view I share with you. But, if so, I do not clearly understand what you mean by a long-term theory of profits. Why should not the answer be that the long term ignores uncertain phenomena, and consequently it is a contradiction of terms to talk of the theory of profits in the long term? Is not that perhaps the answer to your difficulties? Each alternative you adopt to lead you to a conclusion seems to me unsatisfactory. But you start off with the assumption that there must be such a theory. Why?

(letter 1860, 24 January 1941)

In the correspondence of autumn 1936 the main issue between them was whether there is such a thing as an equilibrium rate of exchange and whether the interest rate is equalised across countries. Initially her essay on the foreign exchanges (J. Robinson 1937c) was received by Keynes quite unfavourably: “It seems to me that there is here a formal mistake in reasoning. The whole line of approach strikes me as unsafe and not likely to lead to reliable conclusions” (letter 1815, 4 November 1936, CWK XIV: 141). The point under scrutiny was Robinson's assumed relationship

between saving (S) and investment (I) in an open economy. She claimed that:

For an open system $S = \text{home } I + \text{foreign } I$, i.e. = home investment \pm balance of trade. Home securities are being put on the market at a rate equal at home I . Home saving is forthcoming at a rate equal to home $I \pm$ balance of trade therefore the home demand for home securities exceeds or falls short of the supply according as the balance of trade is positive or negative.

(letter 1816, 5 November 1936, CWK XIV: 141–2)

Keynes, however, pointed out that:

The mistake comes in identifying the demand for home investment with the amount of home saving. There is also available the proceeds of disinvestment in foreign securities. Consequently the demand for home investment is equal to home saving minus or plus the balance of trade. In other words, the demand for home investments is equal to the amount of home investments, which is as it should be.

(letter 1817, 6 November 1936, CWK XIV: 141–3)

In the end Robinson decided to cut “all the controversial matter” and thanked him for preventing her “from publishing a half-baked version” (letter 1823, 13 November 1936, CWK XIV: 147–8).

One year later a much more serious area of disagreement between them arose regarding Robinson’s analysis of accumulation and technical progress. In her 1936 long-period article she had presented an analysis of employment on the basis of the elasticity of substitution between factors, defined as the proportionate change in the ratio of the quantities of factors employed divided by the proportionate change in the ratio of their prices, which she had originally presented in her *Economics of Imperfect Competition*.

According to her analysis, in the long period the amount of employment is the result of “the contrary pulls of increased total output and increased output per head” (J. Robinson 1937a: 87). Therefore a fall in the rate of interest that has no direct effect on the amount of employment if savings are a function exclusively of the level of income, produces an indirect effect by the substitution of capital for labour and the subsequent change in the distribution of income (the share of labour will increase if the elasticity of substitution is less than one). This in turn affects the propensity to save and the multiplier, due to the different saving habits of rich and poor.

In the same article she also analysed the effects of inventions on the distribution of income, i.e. whether inventions reduce the share of labour

(reducing the equilibrium level of income by increasing thriftiness) or whether they increase it (increasing the equilibrium level of income by decreasing thriftiness). She developed her analysis of inventions – for which she acknowledged Kalecki’s assistance (J. Robinson 1937a: 95n) – on the basis of a classification centred on the distinction between neutral, capital-saving and capital-using inventions. In equilibrium, neutral inventions leave capital per unit of product and the relative shares of labour and capital in a given output unchanged, while capital-saving and capital-using inventions reduce/increase capital per unit of product and reduce/increase the relative shares of capital. The reason being that capital-saving inventions increase efficiency in producing capital goods more than in producing final goods, while the opposite occurs in the case of capital-using.

In his review of the book in which the article was published, Harrod challenged Robinson’s definitions, and this occasioned an exchange with her which went on between May and June 1937 (see Rosselli and Besomi 2005: 318–19). Keynes sided with Harrod’s view of her “elasticity substitution method” (letter 1246 from JMK to RFH, 12 April 1937, CWK XIV: 170–4) as being ambiguous without the provision of a precise measure of the quantity of capital.

As a consequence of her debate with Harrod, she decided to write an article on the nature of inventions (J. Robinson 1938a) and asked Keynes to comment on it. He was not convinced by her method of analysing the “once-ever” effect of technology changes on distribution and wrote to her: “you are introducing inventions into the debris of the static, one-at-the-time economics where inventions do not properly belong” (letter 1834, 27 September 1937). Moreover he objected to her use of the elasticity of substitution in the aggregate, since “a great difficulty arises” in her use of cost units to measure capital.

Robinson retorted that as far as the measurement of capital was concerned she was not “any worse than the others”, adding that “Piero is devoting his life to the question, and we cannot expect an answer quickly” (letter 1835, 28 September 1937). Keynes reacted by pointing out that his “difficulty about measuring capital has nothing to do with Piero’s problem, but it is concerned with the effect of inventions in lowering the cost of capital just as much as a product” (letter 1836, 29 September 1937). Moreover, he had a serious reservation as to whether there was “any sense at all in elasticity of substitution between capital and labour in response to new inventions”. He maintained that “With a given state of invention and a given rate of interest, there is as a rule only one proportion in which capital and labour can be combined, subject only to the exception

of using the plant more intensively and this is an element in the situation on which invention may have little or no bearing” (ibid.).

Robinson was unshaken by this criticism and retorted that she was not talking of the “elasticity of substitution in response to an invention, but of the value of that elasticity *after* an invention has occurred”. Keynes, too, remained adamant:

I cannot see how the elasticity of substitution between capital and labour, after adjustment has been made to the new situation, has any bearing at all upon whether, in the usual sense of the term, an invention is capital-saving or labour-saving.

(letter 1839, 6 October 1937)

The topic of elasticity of substitution was considered again some years later, in 1941, in a letter from Keynes, in which he praised Robinson’s article on “Rising supply price” (J. Robinson 1941) (letter 1861, 20 April 1941).

4. An Overview of the Correspondence during and in the Aftermath of the War

As war loomed ominously close, in October 1938, Robinson fell into an extreme emotional state, which was diagnosed as a manic-depressive crisis, and she was confined to hospital for a few months. Of that period, we have only two letters by Keynes (who was still ailing from his heart failure) to her witnessing the warmth and closeness of their friendship (letters 1852 and 1853, 28 December 1938 and 12 January 1939).

From 1939–40 on, Keynes, like most of his friends and colleagues, was personally involved in the war effort. J. Robinson, Sraffa and Kaldor – albeit for different reasons – were excluded and remained in Cambridge, carrying out most of the academic duties. The ensuing correspondence reflects the different occupations in which Keynes and J. Robinson were engaged. Although totally involved in many war-related activities, Keynes retained his habit of asking his closest friends their opinion on what he was writing or doing. Thus we have J. Robinson’s comments on Keynes’s *How to Pay for the War* (letter 1855, 28 February 1940), a discussion on war policies and statistics in December 1940, and, in 1944, on the Bretton Woods agreements (letters 1872–1874, 9–16 September 1944, CWK XXVI: 129–33).

In turn, Keynes was very appreciative of her currency proposal paper (J. Robinson 1943), writing to her:

It is first-class and I have no significant comments or criticisms. Just what is wanted for the purpose. It is excellently dry, in the sense of a good, dry sherry, not of Quaker Oats. I am sending it to the printer at once and am getting him to supply some extra proofs, since I may find it useful to circulate internally before the date of publication.

(letter 1905, 6 June 1943)

Robinson was as usual involved in academic writing and activity. In 1940 “as a distraction from the news” (J. Robinson 1973c: x) she began to read Marx. There is an amusing story about her first involvement with Marx and Marxism, which she later told in an unpublished paper:

In 1936 I published a review of a book by John Strachey (brother of the more famous Lytton), who had set up as a popularizer of Marx – *The Nature of Capitalist Crisis* – I accused him of presenting the labour theory of value in terms of Say’s Law, ignoring Keynes and treating Hayek as the representative of academic economics. He replied that it was absurd for someone who had never read Marx to talk about him. We each felt that the other had made a fair point. He began to read Keynes and I read Marx.

(JVR papers, i/10/1)

Later she claimed that she “began to read *Capital*, just as one reads any book, to see what was in it” (J. Robinson 1966: vi). M. Dobb was one of her “tutors”,³ but Kalecki was the main influence. She wrote that Piero Sraffa used to tease her, saying that she “treated Marx as a little-known forerunner of Kalecki” (ibid.). In a couple of years she produced a slim volume on Marx, *An Essay on Marxian Economics*, which raised a dust in academic and non-academic circles. Kalecki’s comment on her book was very appreciative:

I think that your analysis of Marx is very valuable: it has shown that one conception in his writing is quite consistent; while Marxists who wanted to show that everything is right and consistent failed to show even that.

(Michal Kalecki to JVR, 30 July 1942, JVR papers, vii)

Keynes, too, expressed a favourable opinion of the book, but was not persuaded. As he saw it, J. Robinson was trying to make sense of what in fact was nonsense, that is to say Marx’s economics (letter 1864, 20 August 1942). In the discussion that followed, Robinson conceded to Keynes that perhaps Marx was not a great thinker (letter 1865, 21 August 1942); this

³ See the exchange of letters with Dobb between January and May 1941 in JVR papers, vii.

obviously contrasts with what she came to believe in the years to follow (see Marcuzzo 2001).

Keynes was not involved in academic matters during wartime, but he was often consulted on them: in the correspondence we find, for instance, a report by J. Robinson of Sraffa's progress in the preparation of the much overdue edition of Ricardo's works (letter 1859, 1941); a request to Keynes to support an application to the National Research Institute (letter 1882, 3 September 1941). Another interesting exchange on academic topics occurs in 1942 (letters 1867 and 1868, 7 and 9 December 1942). Robinson informed Keynes that there was a proposal for him to succeed Pigou in Marshall's chair of political economy in Cambridge; Keynes refused to take such a possibility into consideration, judging that he would not be able to stay in Cambridge permanently after the war.

Finally, in 1944, we have an exchange concerning the creation of a fund to support Erwin Rothbarth's widow. Rothbarth was a German refugee who was killed in action over Holland; he was associated with the "Cambridge Research Scheme" (see below) and was very close to Kalecki. And in fact the Kalecki *affair* is the last important issue to review in this correspondence.

5. Kalecki

In 1936 J. Robinson received a letter from Kalecki, who at the time was visiting the London School of Economics, commenting on one of her articles (J. Robinson 1936a), but originally published in the *Economic Journal* in June 1936. Later she gave a lively account of their first encounter:

He told me that he had taken a year's leave from the institute where he was working in Warsaw to write the *General Theory*. In Stockholm someone gave him Keynes's book. He began to read it – and it was the book that he had intended to write. He thought that perhaps further on there would be something different. But no, all the way it was his book. He said: "I confess, I was ill. Three days I lay in bed. Then I thought: Keynes is more known than I am. These ideas will get across much quicker with him and then we can get on to the interesting question, which is their application. Then I got up."

(J. Robinson 1979: 186)

She said she had very soon realised that Kalecki's analysis was indeed as important as Keynes's, and took upon herself the task of "playing the trumpet for him" (*ibid.*). She even indulged in some wishful thinking and wrote to Kahn: "Do you think that Kalecki will induce Piero to take the

General Theory seriously?” (letter 679 from JVR to RFK, 20 March 1937).

Kalecki moved to Cambridge in 1937 and for the first six months of 1938 he was given a grant. In the meanwhile steps were taken to set up a research project to provide him with a permanent job. At the end of 1938, the “Cambridge Research Scheme of the National Institute of Economic and Social Research into Prime Costs and Proceeds and Output” was launched, managed by a Board consisting of Austin Robinson, Kahn, Kalecki and Sraffa and chaired by Keynes.

Early in 1939 Keynes made a very favourable comment on Kalecki’s book (Kalecki 1939) to J. Robinson:

I have been reading Kalecki’s proofs. Perhaps as a result of your proof readings, I find it remarkably lucid and very agreeable, and almost easy, reading. I have not compared these articles he is reprinting to see how much he has changed them and it may be that it is familiarity with his ideas that is helping me. At any rate I find the new version enormously easier. His device of making bold, and perhaps precarious, simplifications in his assumptions on the basis of alleged statistics and *there* beginning his theory (instead of working a theory on generalities and making simplifying assumptions afterwards) is very interesting and, if one minds one’s step and remembers where one is, useful and illuminating. The flavour of him is most peculiar – very subtle, very aesthetic and complete within its own field, yet all the same light weight I can’t help feeling. But it is an important book, so individual and original that it throws light in new courses.

(letter 1853, 12 January 1939)

A few months later Kalecki presented the main findings of his research work with the Cambridge Scheme, in the form of reports on individual industries and an “Interim Summary of Results”. Contrary to expectations, these reports were received with scepticism by J. Robinson, Kahn and Keynes, who objected to the methodology employed. Kalecki resigned from his Cambridge job, at the end of 1939 moving to Oxford, where he joined the University Institute of Statistics. Initially Robinson reported to Kahn that “Kalecki has swallowed the Oxford job without a murmur” (letter 1462 from JVR to RFK, 14 January 1940); however, six months later she noted: “I get a short and bitter letter from Kalecki from time to time. Anyway he seems well dug in at Oxford” (letter 1546 from JVR to RFK, 27 July 1940).

However, a year later, another incident occurred in relation to an article Kalecki had sent to Keynes, which Robinson vigorously defended against Keynes’s attack. In this article Kalecki set out to study the effects of

technical progress, without assuming long-run equilibrium, and envisaged a “reference system” to compare with the system under consideration. He assumed that the reference system

is endowed with the features of technical progress as regards the tendency to raise the degree of oligopoly, the pressure of the raising productivity of labour on the price level, and the influence of inventions upon investment; but it is not subject to the rise in productivity of labour and to the fall in the ratio of productive capacity to capital.

(Kalecki [1941] 1991: 111)

Moreover, for both the actual and the reference system he assumed constant marginal costs, imperfect competition and undercapacity utilisation. The result of the comparison was that the effect of technical progress is not to increase output, but to save labour; output is influenced only through the channels of investment, oligopoly and the general price level.

Keynes was thoroughly unhappy with the approach and wrote to J. Robinson in a very negative key: “after a highly rational introduction of a couple of pages my first impression is that it becomes high, almost delirious nonsense” (letter 1893, 4 February 1941, CWK XII: 830). He complained that many of Kalecki’s assumptions were “latent and tacit”, if not probably “self-contradictory” and in particular that of undercapacity utilisation “rather odd”. Robinson reacted firmly: “I am prepared to stick up for Kalecki” and explained that there is another meaning of long-period – besides the classical one – and that in imperfect competition underutilization of capacity is a normal situation” (letter 1892, 4 February 1941, CWK XII: 830).

The exchange continued in the following days in a fairly tense mode, Keynes accusing Kalecki of writing “subject to a whole contraption of secrete knowledge, atmosphere and assumption” (letter 1895, 18 February 1941, CWK XII: 832) and Robinson insisting that “Kalecki is explaining mysteries, not creating them” (letter 1896, 24 February 1941, CWK XII: 833); she attempted to persuade Keynes of the importance of Kalecki’s results, in showing that “capital-using inventions do not reduce the share of labour in the Nat. Div.” (ibid., CWK XII: 833), but to no avail.

At this point Robinson volunteered to help Kalecki revise his article, and as a result Keynes agreed that it was “enormously improved in its present form and is not open to my previous criticisms, at any rate of presentation” (letter 1897, 4 March 1941, CWK XII: 833). However, he remained unconvinced of the argument and decided to send the article to Kaldor for another opinion. Kaldor’s reaction was equally negative: “The

method of proof adopted in the “reference system” makes the analysis unnecessarily cumbersome and lengthy” (letter 1716 from NK to JMK, 9 March 1941). Eventually, Keynes made it final that the article “is pretentious, misleading, inconclusive and perhaps wrong” (letter 1899, 12 March 1941, CWK XII: 83–6). Robinson was forced to retreat: “As you still do not get the point about inventions and relative shares, and Kaldor also failed to see it, I have to confess that Kalecki’s article is not a success” (letter 1900, 13 March 1941, CWK XII: 836). According to the extant correspondence they never discussed Kalecki’s work again.

6. Conclusions

The correspondence between J. Robinson and Keynes examined here shows that, although not always in agreement with her, Keynes trusted Robinson’s judgement, was appreciative of her work and took account of her opinion. For her part, J. Robinson, always respectful of Keynes’s authority, was rarely intimidated by him and often held her own position without giving ground. The correspondence also witnesses J. Robinson’s effort to bring new elements into the Keynesian revolution and to induce Keynes to follow an approach to problems that she regarded as better suited to convey the fundamental ideas of his “revolution”.

At times she would try to lead him to a line other than the one he had chosen, and on several occasions attempted to get Keynes to change his mind on specific issues, as we have seen. After Keynes’s death, especially under the influence of Kalecki and Sraffa, she sought to bridge the Keynesian revolution with other non-mainstream lines of approach from the classical and Marxian tradition. In later works she implied that in the 1930s and 1940s she and Kahn had grasped the true revolutionary implications of Keynes’s theory while Keynes was more reluctant to break radically and definitively with the past tradition. By contrast, the correspondence between Keynes and Robinson shows that, with the possible exception of the 1932–33 period, the roles were quite the reverse, with J. Robinson trying to develop analysis along more traditional lines, while Keynes appears to have been bolder in defending a radically alternative approach to orthodoxy. Such is the case with J. Robinson’s attempt to extend Keynes’s *General Theory* to the long period, or her and Kahn’s allegiance to the Marshallian apparatus, as shown by their reliance on the elasticity of substitution among factors, marginal and average curves, and so forth.

It is true that, after Keynes’s death, J. Robinson tried to bridge Keynes’s theory with other non-neoclassical strands of thought, while

Keynes had failed to appreciate contributions coming from different frameworks of thought, as the Kalecki affair amply demonstrates. Perhaps it is fair to conclude that each succeeded in being independent, original and stubborn both in their relationship and in their endeavours.

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Table 7.1. Keynes–Robinson correspondence

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JVR	JMK	1932	April	9	Attributed	Keynes–King's	L/32/77–8	CWK XIII: 268–9
JMK	JVR	1932	April	14	Dated letter	Robinson–King's	JVR/vii/240/1–2	CWK XIII: 269–70
						Keynes–King's	L/32/79–81	
JVR	JMK	1932	May		Attributed	Keynes–King's	GTE/1/42–4	CWK XIII: 376
JVR	JMK	1932	May		Attributed	Keynes–King's	GTE/1/45–9	CWK XXIX: 42–5
JVR	JMK	1932	May		Attributed	Keynes–King's	GTE/1/56–9	CWK XXIX: 47
JVR	JMK	1932	May		Attributed	Keynes–King's	GTE/1/60–1	CWK XIII: 376–7
JVR	JMK	1932	May		Attributed	Keynes–King's	GTE/1/62–3	CWK XIII: 377
JMK	JVR	1932	May		Attributed	Keynes–King's	GTE/1/64–6	CWK XXIX: 46
JMK	JVR	1932	May	9	Dated letter	Keynes–King's	GTE/1/50–1	CWK XIII: 377–8
JVR	JMK	1932	May	10	Attributed	Keynes–King's	GTE/1/52–5	CWK XIII: 378
JVR	JMK	1932	May	11	Attributed	Keynes–King's	GTE/1/67–8	CWK XIII: 379
JMK	JVR	1932	May	12	Dated letter	Keynes–King's	GTE/1/70–1	CWK XIII: 379–80
						Keynes–King's	GTE/1/72–3	
JMK	JVR	1932	August	14	Dated letter	EAGR Archives, Marshall Library		1886
JMK	JVR	1932	October	16	Inferred from other sources	Not found in the archives		Marcuzzo 2003: 551, (E)
JMK	JVR	1932	October	21	Dated letter	Robinson–King's	JVR/vii/240/3	Turner 1989: 21, (E)
JVR	JMK	1932	December	5	Attributed	Robinson–King's	JVR/1/2.3/33	1783
JMK	JVR	1933	May	8	Dated letter	Keynes–King's	CO/8/226	1784
						Not found in the archives		CWK XIII: 419
JMK	JVR	1933	July	17	Dated letter	Robinson–King's	JVR/vii/240/4–5	Moggridge 1992: 565, (E)
								1887
								1785

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JMK	JVR	1933	August	25	Dated letter	Robinson-King's	JVR/vii/240/6-7	1786
JVR	JMK	1934	March	26	Attributed	Keynes-King's	UA/5/3/124-30	1787
JMK	JVR	1934	March	29	Dated letter	Keynes-King's	UA/5/3/131	CWK XIII: 422 (E) 1788
JMK	JVR	1934	April	17	Inferred from other sources	Not found in the archives		1884
JMK	JVR	1935	June	8	Dated letter	Keynes-King's	GTE/1/215	CWK XIII: 638 1791
JMK	JVR	1935	June	12	Dated letter	Keynes-King's	GTE/1/216	CWK XIII: 638 1792
JVR	JMK	1935	June	13	Attributed	Keynes-King's	GTE/1/217-8	1793
JVR	JMK	1935	June	16	Attributed	Keynes-King's	GTE/1/219-20 and L/R/144-5 and GTE/1/221-31	CWK XIII: 638-45 1794
JMK	JVR	1935	June	18	Dated letter	Keynes-King's	and GTE/1/234-7 and GTE/1/241-3	1795
JVR	JMK	1935	June	19	Attributed	Keynes-King's	GTE/1/247	CWK XIII: 645 1796
						Keynes-King's	GTE/1/248-52 and /232-3 and /238-40 and /244-6	CWK XIII: 646-50
JMK	JVR	1935	September	3	Dated letter	Robinson-King's	GTE/2/4/218	1797
JVR	JMK	1935	September	7	Attributed	Keynes-King's	JVR/vii/240/8 GTE/1/277	CWK XIII: 650-1
JMK	JVR	1935	September	15	Dated letter	Keynes-King's	GTE/1/278-9	CWK XIII: 651 1798
JVR	JMK	1935	Autumn	24	Attributed	Keynes-King's	GTE/1/280-1	CWK XIII: 651 1799
JMK	JVR	1935	October	7-20	Dated letter	Keynes-King's	GTE/1/253-7	CWK XIII: 651-2 1789
JVR	JMK	1935	November	7-20	Attributed	Keynes-King's	GTE/1/413 GTE/1/421	CWK XIII: 652 1800 1790

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JMK	JVR	1935	November	29	Dated letter	Keynes-King's Keynes-King's	CWK XIII: 612	1801
JVR	JMK	1935	December	2	Attributed	Keynes-King's	GTE/1/417 GTE/1/418	1802
JMK	JVR	1935	December	27	Dated letter	Keynes-King's Robinson-King's	GTE/1/419-20 JVR/vii/240/9-10	1803
JMK	JVR	1936	March	3	Dated letter	Keynes-King's	EJ/1/1/367-70	1804
JVR	JMK	1936	March	4	Attributed	Keynes-King's	EJ/1/3/371-3	1805
JVR	JMK	1936	March	29	Attributed	Keynes-King's	EJ/1/3/374-5	1806
JVR	JMK	1936	May	29	Attributed	Keynes-King's	GTE/2/4/216-7	1807
JMK	JVR	1936	September	8	Dated letter	Not found in the archives	CWK XIV: 134	1888
JMK	JVR	1936	September	11	Dated letter	Not found in the archives	CWK XIV: 134	1889
JVR	JMK	1936	September	16	Attributed	Keynes-King's	L/36/60-3	1808
JMK	JVR	1936	September	17	Dated letter	Keynes-King's	L/36/64-6	1809
JMK	JVR	1936	October	5	Dated letter	Not found in the archives	CWK XIV: 137-8	1890
JMK	JVR	1936	October	15	Dated letter	Keynes-King's	L/36/67-8	1810
JMK	JVR	1936	October	16	Postmark	Robinson-King's	JVR/vii/240/11- 12	1811
JVR	JMK	1936	October	16	Attributed	Keynes-King's	L/36/69-71	1812
JVR	JMK	1936	October	16- 20	Attributed	Keynes-King's	L/36/72-3	1814
JVR	JMK	1936	October	20	Attributed	Keynes-King's	L/36/74-5	1813
JMK	JVR	1936	October	28	Dated letter	Not found in the archives	CWK XIV: 140-1	1891
JMK	JVR	1936	November	4	Dated letter	Keynes-King's	L/36/76-7	1815
JVR	JMK	1936	November	5	Attributed	Keynes-King's	L/36/78-80	1816

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JMK	JVR	1936	November	5	Dated letter	Not found in the archives	CWK XIV: 142	1997
JMK	JVR	1936	November	6	Dated letter	Keynes-King's	EJ/1/4/213	1817
JVR	JMK	1936	November	6	Attributed	Keynes-King's	L/36/81-2	1818
JVR	JMK	1936	November	7	Attributed	Keynes-King's	L/36/83-4	1819
JMK	JVR	1936	November	8	Dated letter	Not found in the archives	CWK XIV: 144-5	1998
JVR	JMK	1936	November	9	Attributed	Keynes-King's	L/36/85-7	1820
JMK	JVR	1936	November	9	Dated letter	Not found in the archives	CWK XIV: 146	1999
JVR	JMK	1936	November	10	Attributed	Keynes-King's	L/36/88-9	1821
JMK	JVR	1936	November	12	Dated letter	Keynes-King's	L/36/90	1822
JVR	JMK	1936	November	13	Attributed	Keynes-King's	L/36/91-2	1823
JVR	JMK	1936	November	14	Attributed	Keynes-King's	L/36/93	1824
JVR	JMK	1936	November	18	Attributed	Keynes-King's	GTE/2/4/200-1	1825
JVR	JMK	1936	November	25	Attributed	Keynes-King's	GTE/2/4/202-3	1826
JMK	JVR	1936	December	2	Dated letter	Robinson-King's	JVR/vii/240/13	1827
JVR	JMK	1936	December	3	Attributed	Keynes-King's	GTE/2/4/204	1828
JVR	JMK	1937	March	6	Attributed	Keynes-King's	GTE/2/4/205-6	1829
JMK	JVR	1937	March	25	Dated letter	Keynes-King's	GTE/2/4/207-9	1830
JMK	JVR	1937	April	20	Dated letter	Keynes-King's	GTE/2/4/210-11	1831
JVR	JMK	1937	April	22	Attributed	Keynes-King's	GTE/2/4/212-13	1832
JVR	JMK	1937	August	10	Attributed	Keynes-King's	GTE/2/4/214-15	1833
JMK	JVR	1937	September	27	Dated letter	Keynes-King's	EJ/1/4/61-2	1834
JVR	JMK	1937	September	28	Attributed	Keynes-King's	CO/8/228-31	1835
JMK	JVR	1937	September	29	Dated letter	Keynes-King's	CO/8/232-5	1836
							CO/8/236-7	

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JVR	JMK	1937	September	30	Attributed	Keynes–King’s	CO/8/238–42	1837
JVR	JMK	1937	October	1	Attributed	Keynes–King’s	CO/8/243	1838
JMK	JVR	1937	October	6	Dated letter	Keynes–King’s	CO/8/244–5	1839
JMK	JVR	1937	October	6	Dated letter	Keynes–King’s	EJ/1/4/131–2	1840
JVR	JMK	1937	October	8	Attributed	Keynes–King’s	EJ/1/4/133–5	1841
JMK	JVR	1937	November	20	Dated letter	Robinson–King’s	JVR/vii/240/14–15	Marcuzzo 2003: 552, (E)
JVR	JMK	1938	March	6	Attributed	Keynes–King’s	EJ/1/5/74–5	1843
JMK	JVR	1938	March	22	Dated letter	Keynes–King’s	EJ/1/5/76	1844
JVR	JMK	1938	March	23	Attributed	Keynes–King’s	GTE/2/4/159–62	CWK XXIX: 169
JMK	JVR	1938	March	30	Dated letter	Keynes–King’s	GTE/2/4/163	CWK XXIX: 170
JVR	JMK	1938	July	30	Attributed	Keynes–King’s	GTE/2/4/188–9	CWK XXIX: 181–2
JVR	JMK	1938	August	3	Attributed	Keynes–King’s	GTE/2/4/191–2	1848
JMK	JVR	1938	August	3	Dated letter	Robinson–King’s	JVR/vii/240/16	1849
JVR	JMK	1938	August	4	Postmark	Keynes–King’s	GTE/2/4/195	CWK XXIX: 183
JVR	JMK	1938	September	21	Attributed	Keynes–King’s	A/39/159–60	1851
JMK	JVR	1938	December	28	Dated letter	Robinson–King’s	JVR/vii/240/17–18	1852
JMK	JVR	1939	January	12	Dated letter	Robinson–King’s	JVR/vii/240/19–20	1853
JMK	JVR	1939	December	19	Dated letter	Robinson–King’s	JVR/vii/240/21	1854
JVR	JMK	1940			Attributed	Keynes–King’s	W/1/49	1881
JVR	JMK	1940	February	28	Attributed	Keynes–King’s	HP/4/79–80	1855
JMK	JVR	1940	May	7	Dated letter	Keynes–King’s	W/1/48	1856
JMK	JVR	1940	November	28	Dated letter	Keynes–King’s	EJ/1/6/57	1857
JMK	JVR	1940	December	5	Dated letter	Keynes–King’s	L/40/139	1858
JVR	JMK	1941			Attributed	Keynes–King’s	MM/4/285–6	1907

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JVR	JMK	1941	January	16	Attributed	Keynes-King's	MM/1/5/71	1906
JMK	JVR	1941	January	24	Dated letter	Keynes-King's	EJ/1/7/163-4	1860
JVR	JMK	1941	February	4	Dated letter	Keynes-King's	MM/4/147-8	CWK XII: 830 1892
JMK	JVR	1941	February	4	Dated letter	Keynes-King's	MM/4/149-50	CWK XII: 829-30 1893
JMK	JVR	1941	February	12	Dated letter	Keynes-King's	MM/4/145-6	CWK XII: 830-1 1903
JVR	JMK	1941	February	14	Inferred from other sources	Keynes-King's	MM/4/143-4	CWK XII: 831-2 1895
JMK	JVR	1941	February	18	Dated letter	Keynes-King's	MM/4/141-2	CWK XII: 831-2 1894
JVR	JMK	1941	February	24	Inferred from other sources	Keynes-King's	MM/4/139-40	CWK XII: 832-3 1896
JMK	JVR	1941	March	4	Dated letter	Keynes-King's	MM/4/137-8	CWK XII: 833 1897
JVR	JMK	1941	March	6	Inferred from other sources	Keynes-King's	MM/4/134-5	CWK XII: 834-5 1898
JMK	JVR	1941	March	12	Dated letter	Keynes-King's	MM/4/132-3	CWK XII: 835-6 1899
JVR	JMK	1941	March	13	Inferred from other sources	Keynes-King's	MM/4/131	CWK XII: 836 1900
JMK	JVR	1941	April	20	Dated letter	Keynes-King's	L/41/14-15	1861
JMK	JVR	1941	May	16	Dated letter	Robinson-King's	JVR/vii/240/22	1862
JVR	JMK	1941			Attributed	Keynes-King's	L/41/13	1859
JMK	JVR	1941	September	3	Dated letter	Kaldor-King's	NK/3/30/118/30-1	1882
JVR	JMK	1941	September	19	Attributed	Keynes-King's	BE/1/15	CWK XXII: 409 1863
JMK	JVR	1941	September	24	Dated letter	Not found in the archives		CWK XXII: 409 1901
JMK	JVR	1942	March	24	Inferred from other sources	Not found in the archives		1885
JMK	JVR	1942	August	20	Dated letter	Keynes-King's	L/42/102-3	Moggridge 1992: 470, (E) 1864

<i>From</i>	<i>To</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>Date</i>	<i>Archive</i>	<i>Published in</i>	<i>Item</i>
JVR	JMK	1942	August	21	Attributed	Keynes–King’s	CO/8/246–8	1865
JMK	JVR	1942	August	27	Dated letter	Keynes–King’s	CO/8/249–50	1866
JVR	JMK	1942	December	7	Attributed	Keynes–King’s	UA/5/6/17–18	1867
JMK	JVR	1942	December	9	Dated letter	Keynes–King’s	UA/5/6/19–20	1868
JMK	JVR	1943	June	4	Dated letter	Keynes–King’s	MM/4/232–3	1904
JVR	JMK	1943	June	6	Attributed	Keynes–King’s	MM/4/230–1	1905
JVR	JMK	1943	November		Attributed	Keynes–King’s	EJ/1/7/263–4	1869
JMK	JVR	1943	December	1	Dated letter	Keynes–King’s	EJ/1/7/265–6	1870
JVR	JMK	1944	September	7	Attributed	Keynes–King’s	GTE/3/240–1	1871
JMK	JVR	1944	September	9	Dated letter	Robinson–King’s	JVR/vii/240/23–8	1872
							32	
						Keynes–King’s	W/10/114–19	
JVR	JMK	1944	September	14	Inferred from other sources	Keynes–King’s	W/10/120–1	1873
						Robinson–King’s	JVR/vii/31–3	
						Robinson–King’s	JVR/vii/240/29– 30	1874
JMK	JVR	1944	September	16	Dated letter	Keynes–King’s	W/10/122–3	
							W/10/124–5	
JMK	JVR	1944	October	9	Dated letter	Keynes–King’s	W/10/126–7	1875
JMK	JVR	1945			Attributed	Keynes–King’s	G/1/82	1876
JVR	JMK	1945	February	1	Attributed	Keynes–King’s	G/1/76–7	1877
JMK	JVR	1945	February	5	Dated letter	Keynes–King’s	G/1/78–9	1878
JVR	JMK	1945	February	15	Attributed	Keynes–King’s	G/1/80–2	1879
JMK	JVR	1945	March	24	Dated letter	Keynes–King’s	G/1/84	1902
JVR	JMK	1945	April	7	Attributed	Keynes–King’s	G/1/87	1880

PART III

THE RETURN OF KEYNES

CHAPTER EIGHT

REASON AND REASONABLENESS IN KEYNES: LESSONS FROM *THE ECONOMIC CONSEQUENCES OF THE PEACE* 90 YEARS LATER

MARIA CRISTINA MARCUZZO*

1. The Return of Keynes

Within just a few months from its publication, in December 1919, *The Economic Consequences of the Peace* was enjoying a resounding success (selling about 100,000 copies) and bringing fame to its author. Ninety years later, the argumentation and presentation still prove arresting and persuasive, particularly in the present crisis with Keynes back on the world scene, his thought once again seen as a source of inspiration and stimulus for reappraisal.

This *return* to Keynes may be accounted for by his role as the major exponent of an approach to economics based on the conviction that markets and economic behaviour are to be guided by a logic of coordination and rules, rather than left to the pursuit of individual interests and to the freedom resulting from the lack of public intervention and regulation by the institutions.

We owe to Keynes the recipes and remedies to fight mass unemployment, turbulence on the financial markets and in international trade, and the disorder of markets in the absence of coordination among the supranational institutions. The tools he used were those of persuasion

* I am grateful to Anna Carabelli, Victoria Chick, Mario Cedrini, Marcello De Cecco, Robert Dimand, Luca Fantacci, Craufurd Goodwin, Tiziana Masucci, Nerio Naldi, Anna Rossi-Doria and Giordano Sivini for reading and commenting on the previous drafts. I have not always followed their suggestions, but they have been very useful.

and reasonableness, the means he applied to convince and to create scope for freedom of action where others – economists, above all – saw only constraints and the limits of resources. This approach was formulated and brought to ripeness as Keynes thrashed out his ideas over time, from the end of the First World War, during the years of the Great Depression and then of the Second World War, and on to the design of the new world order a few months before his death in the April of 1946.

Keynes was not only an outstanding theoretician but also an economist intent on seeking concrete remedies and solutions in his work for the British Treasury, as a representative of the United Kingdom in negotiations with the United States during the Second World War, and as a freelance journalist and operator on the financial markets. The 1930s saw him a speculator on the foreign exchange and commodity markets; this led him to the conclusion that market instability was an endemic feature of economic systems, to be curbed with interventions coordinated between the supranational institutions and the central banks. He drew up plans to bring order to the functioning of the raw material market, of multilateral exchange between countries and the regulation of international payments.

In his long activity as government adviser and leader of public opinion, Keynes was ever guided by the idea that the economic system was not regulated by immutable and eternal laws, but rather as a result of conventions, convictions and prejudices which the reformer had the task of moulding through persuasion.

The *Economic Consequences of the Peace*, written when Keynes was only 36 (he was born in 1883), anticipates and, in his attitude to the economic problems to be addressed at the end of the war, affords glimpses of an approach that was to mature in his subsequent writings, such as the *Tract on Monetary Reform* (1923), the *Treatise on Money* (1930), and the *General Theory of Employment, Interest and Money* (1936).

The book was a desperate attempt to persuade the public and governments that the Treaty of Versailles was to be modified on the basis of the principle of reasonableness, and not of the victor's revenge, "to avert the misfortunes which impend otherwise" (CWK II: xxii). A concluding phrase sums up the intention, namely "The assertion of truth, the unveiling of illusion, the dissipation of hate, the enlargement and instruction of men's hearts and minds ..." (CWK II: 188).

With the crisis that has now hit the world economy, the principles to look to are once again those that Keynes advocated to address the loss of market confidence and the decline in production and employment, and the pages of the *General Theory* or, rather, interpretation of the Vulgate – deficit spending and public investments – are once again being referred to

and re-utilised. A rereading of the *Consequences* and some hard thinking about the use of the term reasonable seem to me to point along a path not alternative but parallel to the one described above, and it is the path I wish to traverse in this paper.

To see what sort of guidance we can find there for the present, I will briefly outline the context in which the *Consequences* was written and the reasons behind it (section 2), and then trace Keynes's approach back to the Bloomsbury background (section 3); in section 4, I identify in the distinction between reason (or rationality) and reasonableness, to be seen also in Rawls, one of the characteristic features of Keynes's economic train of thought. Section 5 ventures to trace out a parallel between the humiliation of the conquered at Versailles and the debtor mortification inflicted on Lehman Brothers. In section 6 we briefly conclude that the return to Keynes we should wish for is not only a matter of supporting demand in order to avoid general deflation, or reform of the international monetary system to avert the effects of the present *world imbalances*, but more extensive application of the Keynesian concept of reasonableness against the so-called *rationality* of individuals and markets.

2. The Carthaginian Peace

In the 1918 armistice the United Kingdom and France included a clause to the effect that Germany was to pay "reparations" to the Allies for the damage inflicted on the civil population. In his first Memorandum, October 1918, to the Treasury, where he had been on leave from teaching at Cambridge University since the outbreak of war, Keynes lost no time in making it clear that, in determining the magnitude of reparations, due account should be taken of Germany's effective capacity to pay. In other words, the country's productive capacity was not to be destroyed, for this was the only way to ensure that Germany could pay the Allies.

Thus there were essentially two accounts to be reconciled: the extent of the damage caused by Germany and the probable magnitude of its productive capacity. While the former could be ascertained with a fair degree of certainty, the latter could only be estimated approximately. But – and this was the point Keynes stressed – there was not a reason in the world why the two sums, i.e. damage undergone and capacity to pay, should coincide, and, on the basis of Keynes's estimations, they did not coincide at all.

The UK General Election of December 1918 saw the triumph of Lloyd George, and a parliament of nationalists was formed which found itself in perfect accord with the revanchism of the French allies under the

leadership of an implacable Clemenceau. France and the United Kingdom were both set on making Germany pay the cost of the war, and not only the war damage, as established by the armistice:¹ if there was anything left to discuss, it was how to share out the spoils, while a severely depleted Italy could only hope that reparations might get the country back on its feet. Dominating the whole scene, now, was the United States, without whose contribution there could have been no victory for the Allies, and the philosophy of President Wilson, who, with his 14 points and the promises of the League of Nations, had set the terms of the armistice.

In Paris the “Four” victors (United States, France, United Kingdom and Italy) and their delegations were called upon to give concrete content both to the principles of self-determination and freedom for the new nations and to the claims for reparations to be made by the defeated to the victors – a hard and contradictory task.

Such was the scenario opening before Keynes’s eyes when he arrived in Paris on 10 January 1919 as the representative heading the delegation of the British Treasury, sent to handle the financial aspects of the transition to peace.

The first opportunity to gauge the difficulty was a journey to Germany with the representatives of the US, Italian and French Treasuries to meet a German delegation. The meeting took place on a train. The German delegation was headed by the President of the Reichsbank, but it was another member of the delegation who made a strong impression on Keynes, namely Carl Melchior, a partner of the German Warburg Bank. Keynes was later to write a splendid memoir on him, published posthumously (CWK X: 389–429).

Keynes found the French at the Conference insufferable. He found them arid, incompetent and absurd in their demands on Germany, reserving particular loathing for their finance minister, Klotz. In March 1919, in an effort to persuade Lloyd George to revise demands for reparation, Keynes reassessed the ratio between what was being demanded and what might realistically be expected of Germany, but the British delegation showed scant response. By the month of May the draft of the Peace Treaty drawn up by 58 economic experts with the deliberations of the Council of Four (United States, France, United Kingdom and Italy) was ready, and Keynes was shocked. He decided to resign within the space

¹ As has been pointed out (Amato and Fantacci 2009: 185, my translation): “Moreover, the unilateral alteration of the conditions previously agreed upon constituted, for Keynes, unscrupulous violation of that sacredness of international conventions in the name of which the Allies had declared war on the invader of neutral Belgium.”

of two or three weeks, bereft of any illusions about the possibility of obtaining “substantial modifications” (in his own words) to the terms contemplated.

And in fact, when the Treaty of Versailles was signed on 28 June 1919 Keynes had already left Paris for the peace and comforting familiarity – unorthodox, but typically Bloomsbury – of Charleston, the country house where Vanessa Bell, Duncan Grant and David Garnett enjoyed a *ménage à-trois*, and had started work on his book. It took three months to finish; Keynes drafted it during the summer, and as the text took shape he read passages from it to his Bloomsbury friends (Moggridge 1992: 321). I will return to the subject in the following section.

The theme of the *Consequences* is how the war had damaged the delicate economic mechanism thanks to which Europe had been able to live in prosperity before 1914, and how the Treaty of Versailles had not repaired it but completed its destruction: “My purpose in this book” – wrote Keynes – “is to show that the Carthaginian Peace is not practically right or possible” (CWK II: 23), going on to point out (CWK II: 40):

I am mainly concerned in what follows, not with the justice of the treaty – neither with the demand for penal justice against the enemy, nor with the obligation of contractual justice on the victor – but with its wisdom and with its consequences.

Here I would like to dwell on the words “wisdom” and “consequences” as the yardstick Keynes always adopted to evaluate any intervention in the economic sphere, particularly in times of crisis or major upheavals. The word “wisdom”, vague as it may seem, actually refers to a guiding principle of human behaviour that breaks away from individual utilitarian calculation, which brings apparently some but occasionally illusory advantages. It is a principle invoked to curb the forces that threaten to disrupt the social order, and, rather, to favour the settlement of conflicting interests with the logic of social civility.

Keynes based his analysis of the consequences of economic decisions or measures on the interrelation between, on the one hand, the production of wealth and its distribution, and, on the other hand, the social organisation upon which it rests. Disruption of the orderly, progressive increase in individual and collective wellbeing generates obscure and irrational forces that undermine security and freedom within society.

In the *Consequences*, as in the *General Theory* and in his addresses to the British Parliament calling for approval of the Bretton Woods agreements – that is, the architecture of the international monetary system in the aftermath of the Second World War – Keynes would invariably arm

himself with these means to alert against the risks and dangers of high unemployment, growing foreign debt drastically squeezing consumption, mortifying national identity on sanctioning the subjection of one country to another.

Keynes never abandoned the ideal of a civilisation based on individual freedom but not at the expense of collective good; in vain, all too often, he sought to demonstrate that this was not practicable if founded solely on the pursuit of private interest – whether of individuals or of nations – following a *homo homini lupus* rationale in a market without rules or an international organisation devoid of institutions deputed to settle conflicts.

In the *Consequences* the need is summed up thus (CWK II: 60):

[...] particular interests and particular claims, however well founded in sentiment or in justice, must yield to sovereign expediency.

Let us now look more closely into Keynes's reasoning in relation to the issue dealt with in the *Consequences*, namely the Treaty of Versailles, which brought an end to one of the bloodiest wars Europe had seen, and how the victors set about addressing the economic and social devastation in the aftermath to set things aright.

The conceptual and political crux of the peace of Versailles lay in the victors' demands that the defeated should bear the cost of the war, to sap the strength of a powerful and dangerous enemy forever by crippling the sovereignty and economic influence of Germany and, at the same time, burdening the country with the cost of reparations, *as if* its productive and financial potential had remained intact at the pre-war level.

But let us see in detail how Keynes came to this conclusion. His estimates of the war damage – deriving from close, painstaking examination – are summarised in the following figures (all in millions of pounds sterling): Belgium (500), France (800), United Kingdom (570), Other Allies (250) for a total of 2,120. Set not only on claiming reparation for material damage, France and the United Kingdom, riding the wave of hate and vengeance, were also determined to include in the reparations of pensions and benefits to be provided at home, bringing the overall bill to about 8,000 million pounds sterling.

In defence of such a sum, which Clemenceau and Lloyd George rhetorically held sufficient to satisfy the public sentiment and their electorates, was the hypocritical conviction that this was also what Germany – whose economic power was to be overthrown – was effectively able to pay.

But, according to Keynes's estimates, how much would Germany have in fact been able to pay? Taking into account the immediately transferable

wealth (gold, ships and foreign securities), property present in territories ceded or surrendered on the basis of the armistice, and exports yielding foreign currency to pay the Allies, the figure came to no more than 2,000 million, and thus the 8,000 million demanded by the Treaty were certainly “not within the limits of reasonable possibility”.

The force of Keynes’s arguments is inescapable: a peace based on the principle that “*Germania delenda est*” was neither just nor, above all, practicable, not only as a matter of human justice, which does not authorise nations to “visit on the children of their enemies the misdoings of parents or of rulers” (CWK II: 142), or of the political consequences that humiliation of the defeated can entail for the victors, too, but also on account of the jeopardy unleashed on the overall economic order. Depriving Germany of sovereignty, its foreign possessions and internal productive capacity meant in practice preventing the country from meeting the demands for war damage reparation. Deprived of its colonies, of trade relations, merchant fleet, ten percent of its territory and population, a third of its coal production and three quarters of its iron production, with two million killed in the war, its currency reduced to a seventh of its value, and a huge public debt, how was it possible for Germany to pay an indemnity calling for a level of economic activity actually higher than had been achieved by the country before the war?

The sheer folly of the demand – ferociously advanced by France (i.e. by Clemenceau), feebly opposed by the United States (i.e. by Wilson) and cynically supported by the United Kingdom (i.e. by Lloyd George) – lay in the misappraisal of Germany’s effective capacity to pay and the short-sightedness of statesmen whose preoccupations related not to the future of Europe but solely to “frontiers and nationalities, to the balance of power, to imperial aggrandizements”.

The consequences of the political and economic destruction of a country were not seen to extend to the inevitable impact on its trading partners, who would also be sucked into a vicious circle of stagnation.

Characteristically, Keynes’s analysis entails identification of the remedies – in this case, essentially a matter of lightening the burden placed on Germany to allow for recovery in production and trade (and the other countries needed to be able to benefit from Germany’s recovery to sustain their own); settlement of inter-ally indebtedness to avoid internal constraints on the victorious countries in their policies to relaunch their economies, and an international loan to help boost all the economies (CWK II: 169):

[...] an economic system, to which every one had the opportunity of belonging and which gave special privilege to none, is surely absolutely

free from the objections of a privileged and avowedly imperialistic scheme of exclusion and discrimination.

And yet today Keynes's *remedies* strike us as far from having any chance of being taken up as they were at the time. Asking the United States to forgo the repayment of loans granted above all to France and the United Kingdom, to sustain the war effort as precondition to ask these two countries to forego reparations from Germany, and actually proposing and inter-ally loan to get the economies moving after the devastation of four years of destructive fury, attests to Keynes's great economic wisdom, but also, perhaps, to a certain political naivety.² On the other hand, it might be seen as an example of that appeal to "reasonableness" that could be interpreted in modern terms of reciprocity (as in Rawls, for instance) or, more probably, associated with that concourse of ideas upon which Bloomsbury thrived.

3. The Bloomsbury "Civilisation"

Bloomsbury is a district of London where there lived – in many cases living together – a group of friends who shared a lifestyle and a passion for art and literature, holding social conventions and the morals of their time in contempt.³ At the core of the group were Vanessa, Virginia and Adrian Stephen, Clive Bell (who married Vanessa), John Maynard Keynes, Lytton Strachey, Duncan Grant (with whom Vanessa had a daughter, who eventually married David Garnett), Desmond MacCarthy, Roger Fry and Leonard Woolf (who married Virginia). Then there were the other, outer members, like the writer E.M. Forster, James Strachey (brother of Lytton and translator of Freud), the painter Dora Carrington (who lived with Lytton Strachey) and many other exponents of twentieth-century British culture.

² According to De Cecco "at the Paris conference strangling economic conditions were imposed on Germany [... but] there was no intention to respect them [...] what happened at the peace table was dictated not by the stupidity or wickedness of the protagonists, so much as the need to give the masses which their political classes had drawn into the war proof that the sacrifices had not been in vain" (De Cecco 1983: 18–19, my translation). Keynes, according to this thesis, became aware only "dimly of the scandalous 'political exchange' that was taking place" (ibid.: 20).

³ In the pungent description by the most authoritative biographer of Bloomsbury, Michael Holroyd, "all couples were triangles who lived in squares" (Holroyd 1967: 413).

These friends met regularly, exploiting the occasion of dinners, receptions and travels to discuss common ideas rooted in the absolute value attributed to aesthetics and bearing witness to a *religion* that saw the highest form of human expression in art. Roger Fry and Clive Bell, drawing upon certain aspects of the philosophy of G.E. Moore, theorised the principles of “Civilisation” based on “reasonableness and a sense of value” (Clive Bell 1928: 54, cit. in Goodwin 2006: 223).

A cornerstone of this “civilisation” consisted of the life of the imagination, which Fry and Bell identified with artistic activity. We may, however, also interpret it as an activity that surpasses the constraints and limitations of biological and material existence through the transformations and sea-change that art – but also science – can achieve. There is an echo of this in one of the concluding sentences of the *Consequences*: “setting in motion those forces of instruction and imagination which change opinion” (CWK II: 188).

During the First World War Keynes came under heavy criticism from his Bloomsbury friends – many of them conscientious objectors – for working for the government and for a war that had come about to defend a world and lifestyle they detested. We must also bear in mind that Keynes often exploited the privilege of his position to help his friends obtain exoneration from military service and to find jobs for them in the civilian world as a sort of refuge from the war. And it was this book, written and read within the sphere of the Bloomsbury group, that reconciled Keynes’s two commitments: to the world of his friends and to public life within the institutions.

As we have seen, most of the book was written at Charleston during the summer of 1919. We know the date when he started – 23 June – from a letter by Keynes to Oscar Falk (Skidelsky 1983: 376), and of the end of the first draft – 11 October – (ibid.: 382).

The book was greatly appreciated in Bloomsbury. Lytton Strachey wrote to Keynes on 16 December 1919, four days after its publication (quoted in Dostaler 2007: 150):

As to the argument it is certainly most crushing, most terrible [...] To my mind the ideal thing would be to abolish reparation altogether – but of course that is not practical politics.

Virginia Woolf wrote that it was “a book that influences the world without being in the least a work of art: a work of morality” (quoted in Goodwin 2007: 275), but even more significant is her letter to Benedict Nicholson, of 24 August 1940: “Maynard is Bloomsbury. He wrote the [Economic] *Consequences of the Peace*” (quoted in Goodwin 2007: 290).

What characterised Bloomsbury, as defined, for example, by Quentin Bell (1968), was the ideal of reason in the service of enjoyment of the pleasures of life, trusting in the exchange of different points of view – in a word, placing their faith in “rational conversation” as a means of fending off the irrational urges prompted by religion, nationalism or superstitions. This, essentially, was what belonging to Bloomsbury meant, not only for this particular book, but for Keynes’s entire output.

And yet in *My Early Beliefs* (the essay read in 1938, but published posthumously – as Keynes had expressly wished it to be – and addressed to the Bloomsbury friends),⁴ Keynes stated that he had subsequently abandoned his “juvenile” creed, incubated in the sphere of the Apostles (the forerunners of the Bloomsbury group), and in particular the conviction that “human nature is reasonable” (CWK II: 447). According to R.E. Braithwaite, however, Keynes had no intention of including the moral principles of Moore’s *Principia Ethica* in his outgrown convictions (Braithwaite 1975: 245), least of all the tenet that an action can be judged to be just solely in the light of its consequences (“good as a means”). This interpretation of Keynes’s position finds confirmation in the celebrated dictum in the *Consequences* which we have already met (CWK II: 40, italics added):

I am mainly concerned in what follows, not with the justice of the Treaty [...] but with its wisdom and with its *consequences*.

Thus it was not in reason – the Bloomsbury creed – that Keynes continued to place his trust, for it does not always succeed in guiding behaviours which may be prey to the obscure and irrational forces of both individuals and markets, but in reasonableness as moral criterion, as judgment of the consequences of choices.

If Keynes subscribed to a consequentialist ethic, just how this sat with his rejection of utilitarianism and whether or not he continued to embrace Moore’s ideas unwaveringly are questions beyond our scope here. I merely wish to point up the idea that behaviour guided by “wisdom” with a view to the consequences is indeed that “reasonable and fair” behaviour to which Keynes attributes the value of right choice and moral duty. In the words of A. Carabelli (1994: 219), who studied the issue in depth:

⁴ The essay was published together with *Dr Melchior: A Defeated Enemy*, in a book entitled *Two Memoirs*, in 1949. David Garnett, who wrote a brief introduction, recalls that “Over a long period, we met together two or three times a year, dined at a restaurant, and after dinner revived our memories of the past listening to one, or more often two, memoirs read aloud by different members of our company” (CWK X: 387).

[...] the problem of right conduct or moral duty in ethics is by Keynes, so to speak, dissolved into that of reasonable action [...] Right action or duty is simply reasonable action. Keynes maintains that what matters is the reasonableness, not the absolute rationality of action.

4. Reason and Reasonableness

At the end of the Second World War, when the Treasury was again getting to grips with war finances and post-war economic conditions – but now also as negotiator with the Americans – Keynes took a position strikingly similar to the approach he had taken in the *Consequences*. As a principle of justice and wisdom, he asked the United States to waive payment of the debts incurred by the United Kingdom, which had “long borne the costs alone”. He suffered a resounding and indeed crushing defeat, failing in his efforts while also having to get the British Parliament to ratify conditions far worse than he had himself anticipated (Marcuzzo 2008). But let us take a brief look at the facts.

A fortnight after cancellation of the Lend-Lease programme⁵ – subsequent to the Japanese surrender – Keynes returned to Washington in September 1945 for his fifth mission as Treasury envoy; he had outlined his strategy to secure US aid in a Memorandum of 18 March of that year, evoking the scenarios opening up for the future UK economy as *Starvation Corner*, *Temptation* and *Justice*. *Starvation Corner* described the effects of efforts to be financially independent of the United States through a policy of rationing and controls following a line of economic autarchy and isolationism; *Temptation* was the choice to ask the United States for a commercial loan in return for a commitment to multilateralism and dismantling imperial preferences, but it was the third solution – *Justice* – that Keynes saw as the only “reasonable alternative” (CWK XXIV: 291). The Americans were, as an act of justice, to grant financing in the form of a “free gift” allowing the United Kingdom to return to normal peacetime conditions of production and consumption, and to embark upon multilateralism in payments and international trade (Carabelli and Cedrini 2010).

If the repayment of UK debts had been negotiated on purely commercial bases, as the Americans were set on demanding – and eventually they had their way – the United Kingdom would have to squeeze internal demand drastically, and this would lead to deflation with

⁵ The US programme (voted in 1941) to supply the UK with what it needed “not in exchange for money but acknowledged by some ‘consideration’ to be negotiated later” (Moggridge 1992: 652).

worldwide repercussions. As we know, such consequences were to some extent avoided thanks to the Marshall Plan and massive American aid for the reconstruction of Europe.

The argument in favour of the “free gift” followed much in the line of the *Consequences* reasoning (CWK XXIV: 291–92, italics added):

It is only by a more comprehensive settlement, which attempts to offer everyone what is *reasonable*, and so far as we can make it, fair, that the financial consequences of the war can be liquidated. This is the aim, namely, that as between the partners to the war, its financial consequences, in so far as they affect future economic intercourse between them, should be so far as possible liquidated.

In this Memorandum of March (circulated in revised form on 15 May at the Treasury) Keynes once again takes up disclosure of the truth, awareness of the consequences and the arms of persuasion against the obscurity of politics, ignorance of realities and entanglement of interests.

The negative conclusions to draw from a possible American refusal also echo the judgment of the allies’ intransigence on reparations passed in the *Consequences* (CWK XXIV: 293):

The Americans would have lost the sense of magnanimity for a financial benefit which is useless to them and even perhaps injurious. This variant would only appeal to those who believe that their duty to God and to mankind requires that every action must be at least dressed up to look like “business”.

As we have seen, Keynes systematically applied the term *reasonable*, often in contrast with the reasons of the victor or creditor, to a guideline *not* characterised by utilitarian calculation, which may prove only apparently to be in the individual interest. Thus reasonable action is guided by judgment, taking into account contingent, mutable circumstances as far as our knowledge can encompass the facts (Carabelli 1994: 219).

The same term was used by Rawls in defining the characteristics of a plural and *just* society. In his book *Political Liberalism* we find this definition (Rawls 1993: 58):

The reasonable is an element of the idea of society as a system of fair cooperation and that its fair terms be reasonable for all to accept is part of its idea of reciprocity.

But how exactly are we to take the term *reasonable*? Habermas interprets it as distinguishing between those who accept the principle of *fairness and cooperation* and those who act *rationally* on the basis of their

own (i.e. individual) conception of what is *good and just*. Thus being *reasonable* is a moral quality lacking in those who behave in a solely rational way.⁶

This, according to Habermas, is the source of the distinction between moral and ethical questions (Habermas 1995: 125):

Questions of justice or moral questions admit of justifiable answers – justifiable in the sense of rational acceptability – because they are concerned with what, from an ideally expanded perspective, is in the equal interest of all. Ethical questions, by contrast, do not admit of such impartial treatment because they refer to what, from the first-person perspective, is in the long run good for me or for us – even if this is not equally good for all.

The sense Keynes attributes to the term *reasonable* shows a strong analogy with the quality described by Rawls and interpreted by Habermas as *moral*, but it is anchored to the structure of his economic theory. In fact, Keynes takes the example of the fallacy of composition to show why the *rational* pursuit of individual interest does not guarantee the collective good, in this case identified as full employment. For example, attempts to reduce real wages or increase the saving of individuals on the basis of an individual rationale will not achieve the aim if undertaken by all, since aggregate prevails over individual effect. However, the impasse of failure to achieve the aggregate effect of full utilisation of resources can be remedied with a set of direct and indirect instruments designed to overcome individual inertia and generate the level of demand necessary to raise the level of employment.

In the case of the reparations and debts consequent upon the two world wars, the fallacy of composition is manifested in the form of a deflationary potential for *all* the economies – a level of demand kept drastically low within a country to satisfy the *reasons* of the victor or creditor. Thus lack of reciprocity or reasonableness leads to consequences not only morally reprehensible but also economically disastrous for anyone who has looked for guidance solely from the individual point of view.

In his introduction to the Italian edition of the *Consequences*, Marcello De Cecco applied Keynes's categories during the 1973–1974 crisis to denounce the policies of the International Monetary Fund, which, faced with the enormous debt run up by the international private banking system, required the “principal debtor countries to adopt policies entailing brutal

⁶ “What rational agents lack is the particular form of moral sensibility that underlies the desire to engage in fair cooperation as such, and to do so on terms that others as equals might reasonably be expected to endorse” (Rawls 1993: 51).

deflation of the internal demand” (De Cecco 1983: 21, my translation). In my rereading of the *Consequences* I would like to add another example of victor policy, suggesting comparison with the episode that sparked off the latest crisis.

5. Was it *reasonable and fair* to let Lehman Brothers go Bankrupt?

A number of authoritative commentators see in the decision to let Lehman Brothers go bankrupt the origin of the spate of devastating consequences on production, employment investment and consumption, and thus on exports (especially in Germany and Japan) that was only stemmed by the turnabout in public intervention policies.

The collapse of New York’s banking giant on 15 September 2008 was the most spectacular bankruptcy in the history of the United States, and probably of the world, with \$613 billion worth of banking debts and 155 of bond debts. The shock to the financial markets brought Standard & Poor’s 500 Index plunging in the sharpest annual fall since 1938, froze the credit market, forced Goldman Sachs to apply to Warren Buffett for an investment of \$5 billion in preferred shares and triggered a run on Treasury Bills that set yield slumping below zero for the first time.⁷

Comparing the Lehman Brothers bankruptcy with the reparations forced on the country that lost the First World War (as was the case of Germany in 1918) or the demand that the country that won the Second World War repay her debts (like the UK in 1945) is indeed audacious and perhaps farfetched, given the different scale on which social and economic ills and the tragedy of so many human lives entailed by the wars are measured. And yet the consequences of the decision – apparently taken on the basis of economic rationality – of letting Lehman Brothers crash are of a systemic and moral order such as to suggest reconsidering the matter with the categories applied by Keynes on those two occasions.

We might even use the scheme of the *Consequences* and, if only we could, imitate the style of the celebrated portraits of Lloyd George, Clemenceau and Wilson to tell the story, with its protagonists (Paulson, Geithner, Bernanke, Fuld), of how Lehman Brothers was eventually left to crash on that fateful week-end of September 2008.

Two days after the publication of the figures for the third quarter, showing losses amounting to close on \$4 billion in the Lehman Brothers’ balance sheet, the Federal Reserve convened an urgent meeting in its New

⁷ Stacy-Marie Ishmael in the *Financial Times*, 4 May 2009.

York premises, inviting all the major investment banks of Wall Street. It was Friday 12 September. Hosting the meeting were Hank Paulson (Dartmouth and Harvard MBA), US Treasury Secretary, and Tim Geithner (Dartmouth and Johns Hopkins MA), President of the New York Fed. It was immediately made clear that the Bush administration held that it was not up to the taxpayers but rather to the Wall Street banks to throw the rope to haul Lehman Brothers up from the precipice.

Subsequently Paulson defended himself asserting that given the Fed statute the government could not grant loans without collateral (which Lehman Brothers could not provide), and the point was also borne out by Bernanke, Chairman of the Federal Reserve, in an interview a few weeks later.⁸

However, accounts of the meeting reported by the press and emerging from the official statements give a rather different picture of Paulson's reasons *why* Lehman could not be saved. As he himself put it to the journalists on that Monday 15 September when application was submitted for recourse to Chapter 11, the US bankruptcy law which allows firms using it to restructure in receivership: "I never once considered it appropriate to put taxpayer money on the line." The US government would not come in to save firms on the brink of bankruptcy because it "would just invite more foolish risk-taking. It would create a 'moral hazard'."⁹

Moral hazard applies to that behaviour which seeks to maximise gains, characterised by risk propensity or scant care about avoiding or minimising losses, encouraged by the conviction that State intervention would be inevitable in the case of failure.

But let us return to that Friday 12. In the Lehman Brothers premises the CEO Dick Fuld (University of Colorado and New York Stern Business School) was waiting in his office convinced that the game was going in his favour. Six months before, JP Morgan had saved Bear Stearns with a Fed loan (Tim Geithner playing a leading role), and in early September the Fed had taken over control of Fannie Mae and Freddie Mac, the two giants of the real estate mortgage market, also on the brink of bankruptcy. If they did not manage to find a buyer – for weeks Fuld had been desperately searching for one – after the South Koreans withdrew from negotiations, it

⁸ "A public-sector solution for Lehman proved infeasible, as the firm could not post sufficient collateral to provide reasonable assurance that a loan from the Federal Reserve would be repaid, and the Treasury did not have the authority to absorb billions of dollars of expected losses to facilitate Lehman's acquisition by another firm" (at <https://money.usnews.com/money/blogs/the-home-front/2008/10/15/ben-bernanke-why-we-didnt-bail-lehman-out>).

⁹ E. Thomas and M. Hirsh, "Paulson's Complaint", *Newsweek*, 24 May 2009.

was widely believed (not only by Lehman, but by many banks the world over) that the Fed or the government would certainly intervene. Fuld was not invited to the meetings, and his vice Bart McDade was leading the Lehman delegation (Sorkin 2009: 306). Fuld was continuing his quest in the market environment. One possibility was to make a proposal to the Bank of America, and Fuld immediately set about contacting the Chairman, Ken Lewis, but at the very same time Lewis was finalising an agreement with John Thain, Chairman of Merrill Lynch, to acquire that bank. He would not call Fuld back; Lehman Brothers was not able to offer the system of retail brokers that the Bank of America was interested in. Subsequently it came to light that it had been Paulson who prompted Thain – a Goldman Sachs work associate – to meet Lewis for the possible acquisition of Merrill Lynch. It is worth adding that an inquiry of the Committee on Oversight and Government Reform is now (June 2009) in progress,

[...] investigating the events surrounding Bank of America's acquisition of Merrill Lynch and the role the Federal Reserve Board (the Fed) and the Department of the Treasury played in that transaction.¹⁰

On Sunday morning Fuld played his last card with Barclays, the big British bank, but there was the complication that nothing could be ratified without the shareholders' assembly; Paulson no longer answered Fuld's phone calls. So it was that when McDade brought an end to the "weekend of fear" with the Fed and government top officials that Sunday, bankruptcy had to be declared before the European and Asian markets opened the following day, and there was nothing left to do.

Thus Hank Paulson, nicknamed "the hammer" – a non-smoking teetotaller, Christian Scientist and keen bird watcher, of the Harvard and Goldman Sachs tribe, got the better of Dick Fuld, nicknamed "the gorilla", a floor trader with state-school education who attended MBA evening classes, and a gambler with a penchant for risky bets. Was this a clash between two ethical codes, two world views,¹¹ or simply the liquidation of a rival in the world of investment banking that was to be restructured?

¹⁰ At www.oversight.house.gov.

¹¹ At the time of writing (7 June 2009), the magazine *Time* carried out an opinion poll among its readers on the 25 people to blame for the financial crisis, and among them appeared the names of Fuld and Paulson; of the two, the more blameworthy according to the number of votes was the Treasury Secretary.

This was the indictment launched by Dick Fuld, who stated before the Waxman Committee¹² on 6 October 2008:

On the same day Lehman Brothers prepared to file for bankruptcy, the Federal Reserve significantly broadened the types of collateral all banks were able to pledge to the Federal Reserve to create additional liquidity, the lifeblood of our system, and the Federal Reserve also adopted, on a temporary basis, the type of exemption that Lehman Brothers had applied for earlier. Had these changes been made sooner, they would have been extraordinarily helpful to Lehman Brothers. A few days later, the Federal Reserve took expedited action to approve applications of Goldman Sachs and Morgan Stanley to become bank holding companies.

It was Ben Bernanke (Harvard and MIT), who had studied the Great Depression bank crashes in depth and upheld the effectiveness of the New Deal regulations,¹³ who prevented total collapse by opening the Fed coffers – with loans amounting to \$1 trillion – and persuading Paulson to go before a recalcitrant Congress to gain consensus for exceptional measures.

The week-end after the one so fateful for Lehman Brothers, AIG was *saved* by the government with an outlay of \$85 billion and control of an equity stake of 80% of the capital. Just a month later, the considerations that had stood in the way of saving Lehman Brothers did not apply, or no longer applied. Bernanke submitted two arguments to justify intervention, in this case, by the Fed:

In the case of AIG, the Federal Reserve and the Treasury judged that a disorderly failure would have severely threatened global financial stability and the performance of the U.S. economy. We also judged that emergency Federal Reserve credit to AIG would be adequately secured by AIG's assets.¹⁴

With regard to the first point, the Fed and Treasury deemed that in the case of Lehman Brothers bankruptcy would not have “severely threatened global financial stability and the performance of the U.S. economy”;

¹² Statement of Richard S. Fuld before the United States House Committee on Oversight and Government Reform, Causes and Effects of the Lehman Brothers Bankruptcy, 6 October 2008 (at www.oversight.house.gov).

¹³ “It might be argued that the federally directed financial rehabilitation – which took strong measures against the problems of both creditors and debtors – was the only major New Deal program that successfully promoted economic recovery” (Bernanke 1983: 273).

¹⁴ At <https://money.usnews.com/money/blogs/the-home-front/2008/10/15/ben-bernanke-why-we-didnt-bail-lehman-out>.

unfortunately, the argument proved ungrounded and the suspicion remains that the judgment was prompted by another motivation, namely reprisal against the debtor, given an exemplary answer at the level of market law rationale.

Questionable, too, is the second point, i.e. that Lehman Brothers lacked sufficient collateral to obtain credit, if it is in fact true that when it crashed Lehman had book equity amounting to \$26 billion, as also emerges from the evidence given by Luigi Zingales to the Waxman Committee:

The Lehman CEO will likely tell you that his company was solvent, and it was brought down by a run. This is a distinct possibility. The problem is that nobody knows for sure.¹⁵

The case of Lehman Brothers – the only investment bank left to go bankrupt in the USA or Europe – has yet to be studied, its darkest corners scrutinised, above all in terms of the *reasons* of its protagonists.¹⁶

6. Some Tentative Conclusions

The distinguishing feature of the Keynesian approach is a conception of economics as extension of possibilities, as opposed to behaviours guided by particular interest, proposing remedies to safeguard the general interest as condition for prosperity and social harmony.

Forging his approach under the enlightening influence of Bloomsbury and Moore's *Principia*, Keynes combined the criterion of consequentialist justice with criticism of the fallacy of composition, which he saw in classical economic theory, to contest the equation: individual interest = collective good.

The return to Keynes repeatedly called for in the emergency of the economic earthquake that began in 2008 and the economic crisis persisting into 2009 has taken the form of large-scale public intervention,

¹⁵ According to Zingales, “the doubts about the value of its assets combined with the high degree of leverage created a huge uncertainty about the true value of this equity. It could have been worth \$40 billion or negative 20” (United States House Committee on Oversight and Government Reform, at www.oversight.house.gov).

¹⁶ The conclusion of a recent and very well documented account of the events is: “it cannot be denied that federal officials – including Paulson, Bernanke, and Geithner – contributed to the market turmoil through a series of inconsistent decisions. They offered a safety net to Bear Stearns and backstopped Fannie Mae and Freddie Mac, but allowed Lehman to fall into Chapter 11, only to rescue AIG soon after. What was the pattern? What were the rules? There didn't appear to be any...” (Sorkin 2009: 535).

extraordinary injections of liquidity and abandonment of the rhetoric about the superiority of the market.

There is, however, an aspect of Keynes's approach that does not seem to have received as much attention. Economic rationality seems to authorise demands to bring debtors to book, imposing indiscriminate sacrifices, ignoring the pleas of the weakest, invoking rigorous laws and threatening social protection and security. By contrast, Keynes's reasonableness appeals to judgment on the basis of the circumstances, to exercise of the imagination and creativity in seeking solutions characterised by analysis of the consequences from the overall point of view.

Foregoing exorbitant war reparations from Germany and cancelling the UK debts – solutions proposed as conditions for a *common* future of prosperity – are examples of the philosophy that Keynes promoted and pursued. The same principle of *reasonableness* should have guided the decision to save Lehman Brothers, abandoning the logic of uncertainty about the true value of its assets and the idea of sending a message to the investment banks or simply defeating a formidable competitor. Consideration of its consequences for the stability of finance and economic growth should have been allowed for.

Comparing the Lehman Brothers crash with the decisions taken at Versailles and in the Anglo-American negotiations of 1945 serves the purpose of drawing upon the lesson of the *Consequences* and Keynes's teaching. The contexts are manifestly different, but we can see prevailing the same logic of confrontation between personalities (Wilson, Clemenceau and Lloyd George in the first case; the American Morgenthau, Secretary of Treasury, White, Treasury Director of Research, and Keynes in the second; Fuld, Paulson and Geithner in the third), and contrasting interests (the Allies against Germany, the Americans against the British, the Treasury and the Fed against Lehman) rather than a solution that was and should have been seen as *reasonable*.

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CHAPTER NINE

WHOSE WELFARE STATE? BEVERIDGE VERSUS KEYNES

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[Keynes] told me that he no longer believed in the importance of economic reconstruction: what we wanted was more culture and beauty and noble motive, and some sort of creed and code of conduct. But he so sorrowfully admitted that he had no definite social creed and did not see the emergence of a new code of conduct.

(B. Webb to W. Beveridge, 13 July 1936)

[Your general scheme] leave[s] me in a state of wild enthusiasm [...] I think it a vast constructive reform of real importance and I am relieved to find that it is so financially possible.

(J.M. Keynes to W. Beveridge, 17 March 1942)

1. Introduction

There is a widespread tendency to portray Keynes as the founding father of the Welfare State and to claim that the Keynesian revolution provided the justification for the need of a large public sector in the economy.¹ As the literature has amply shown, there are scant grounds for these claims.

* Earlier drafts of this chapter were presented at Hitotsubashi University, London School of Economics, Federal University of Rio de Janeiro, and Storep Conference in Lecce; I benefited from comments by the participants to these occasions, in particular A. Komine, who was very helpful in correcting inaccuracies and omissions in the first draft. I am also indebted to Alex Saunders for excellent research assistance and to an anonymous referee. An abridged version of the chapter is published in Italian in Marcuzzo (2006), where a tentative list, together with a selection of the correspondence between Keynes and Beveridge, can be found.

¹ There is a vast literature containing such claims, an extreme example being Buchanan and Wagner (1977): see, for instance, the following assertion: “The

Keynes's criticism of *laissez-faire* policy and disbelief in the smooth working of market forces is antecedent² to the *General Theory*, where the case for intervention is made when faced with aggregate demand failure. The policy message in the *General Theory* is to sustain the level of investment, but this should be interpreted more in the sense of "stabilizing business confidence" (Bateman 1996: 148) than as a plea for debt-financed public works (Kregel 1985). His reliance on "socializing investment" rather than a fiscal policy aimed at smoothing out consumption levels over the cycle shows his concern for the size of the deficit, and the importance ascribed to market incentives to bring about the desired level of employment. In the *General Theory* he made it very clear: "If the State is able to determine the aggregate amount of resources devoted to augmenting the instruments and the basic rate of reward to those who own them, it will have accomplished all that is necessary" (CWK VII: 378). Thus, the implication that Keynes was in favour of large and growing public expenditure such as we have experienced since World War II — as a consequence of so-called Keynesian policies — simply cannot be drawn.³

Keynes's role in the foundation of the Welfare State as far as his actual contributions are concerned both in theoretical and practical terms has not, however, been investigated in detail. This chapter sets out to propose some further thoughts on the matter, focusing on two aspects in particular. The first is an assessment of Keynes's views vis-a-vis what we now understand as the Welfare State; the second is a comparison between these views and those of Beveridge, the twin founding-father of the system, as they emerge in the exchange Beveridge and Keynes had on the subject. As a sideline, it may also shed some light on the nature of their relations, from the years that saw them playing leading roles in shaping contemporary economics, respectively, at Cambridge and at the London School of Economics, to the time when their commitment to a high and stable level of employment and to spreading the benefits of higher standard of living widely found

legacy or heritage of Lord Keynes is [...] political bias toward deficit spending, inflation, and the growth of government" (ibid.: 24).

² "Keynes challenged *laissez-faire* as a *policy* well before he had developed a critique of the orthodox economic *theory* of the self-adjusting tendencies of the free market" (Meade 1990: 21).

³ "It is simply unreasonable to claim that [the] growth in government is the *logical* consequence of Keynes's views on the functions of government, as distinct from those of his followers" (Peacock 1993: 28); "Keynes was concerned that expansionary fiscal policies should not give rise to mounting budget deficit" (Dimsdale 1988: 334).

acceptance amongst the general public and was endorsed by the British government.

Section 2 reviews the main issues faced today in defining the Welfare State; section 3 compares Keynes's and Beveridge's ideas on unemployment and social insurance; section 4 examines some aspects of their relations as they emerge from the extant correspondence.

2. The Genesis of the Welfare State

Shionoya (2010) maintains that debates on welfare issues have had “a longer history” than the rise of so-called welfare state in the twentieth century and the underlying ideas “had been in circulation under different labels”. Moreover, according to a popular textbook entirely dedicated to this topic (Barr 2004), the Welfare State “defies precise definition”. The main reasons are that welfare derives from other sources besides state activity, and there are various modes of delivery of the services made available to citizens. Some are funded but not produced by the State, some publicly produced and delivered free of charge, some bought by the private sector, and some acquired by individuals with the money handed on to them by the State. Although its boundaries are not well defined, the Welfare State is used as “shorthand for the state's activities in four broad areas: cash benefits; health care; education; and food, housing, and other welfare services” (Barr 2004: 21).

The objectives of the Welfare State can be grouped under four general headings. It should support living standards and reduce inequality, and in so doing it should avoid costs explosion and deter behaviour conducive to moral hazard and adverse selection. All these objectives should be achieved minimizing administrative costs and the abuse of power by those in charge of running it.

The road leading to endorsement of the above goals in Britain started with the liberal reforms of 1906–14, but full commitment to them was only sealed with the legislation of 1944–48, favourable conditions for which derived from the experience of World War II and the aftermath.

In the first decade of the twentieth century the “new liberalism” was an ideology based on the premise that, in order to advance individual freedom, the state must adopt an active role in social reform; the new measures resulted in the simultaneous introduction of old-age pensions, unemployment insurance, sickness benefits and progressive taxation. However, “the reforms were relatively minor and had limited coverage” (Barr 2004: 13). Even less was achieved in the interwar period, apart from housing and unemployment insurance. Unemployment benefits were in

constant danger of outgrowing contributions as unemployment levels soared. By the late 1920s two lines of policy were dominating the political arena: one concerned the financing of unemployment benefits, the other the challenge of reducing unemployment. In 1931 the screws were tightened on eligibility for benefits, and in 1934 the Unemployment Act separated unemployment benefits from measures supporting the long-term unemployed. So “in the 1930s the Welfare State was in abeyance, and new measures were little more than crisis management [...] When intervention came, in the form of rearmament and war production, the unemployment problem disappeared — an unhappy way of ending an unhappy period in British social policy” (Barr 2004: 26).

In this setting a major breakthrough came with the Beveridge Report (Beveridge 1942).⁴ It was based on three pillars: (a) family allowances; (b) comprehensive health care; (c) full employment policy. The social insurance scheme was “all-embracing in scope of person and of needs [...] Every person [...] will pay a single security contribution by a stamp on a single insurance document each week [...] Unemployment benefit, disability benefit [and] retirement pensions after a transitional period [...] will be at the same rate irrespective of previous earnings” (Beveridge 1942: 9–10). The system was to be centrally administered, and financed by equal contributions from employers, employee and the state, with equal benefits set at a physical subsistence level.⁵

Since the publication of the *General Theory* in 1936 Keynes had been arguing in favour of control over total investment⁶ – the bulk of it ought to be carried out or influenced by public or semi-public bodies – as the viable solution to maintain a steady level of employment.⁷ He saw the “curse of unemployment” (CWK XXVI: 16) as the root of the evil of market economies, driving the risk of being overwhelmed by totalitarian solutions – whether of right-wing or left-wing inspiration – to alarmingly high levels in the 1930s. As he wrote to the editor of *The New Statesman and Nation*, 11 August 1934 “Marxists are ready to sacrifice the political liberties of individuals in order to change the existing economic order. So are Fascists

⁴ The background to it is given in Harris ([1977] 1997).

⁵ The 1944 White Paper, *Social Insurance*, accepted most of these recommendations.

⁶ This was just the final and mature stage of Keynes’s thinking on this matter. On the earliest stage, mainly his contribution to *Britain’s Industrial Future*, see Moggridge (1992: 458–60).

⁷ The 1944 White Paper, *Employment Policy*, committed the government to “the maintenance of a high and stable level of employment”.

and Nazis [...] My own aim is economic reform by the methods of political liberalism” (CWK XXVIII: 28–9).

The question arises of the relationship between two approaches taken by Beveridge and Keynes, respectively, to counteract the instability and insecurity deriving from a market economy, in terms of their source of inspiration, design and implementation.

3. The Case for Full Employment and National Insurance: Keynes and Beveridge

It has been argued (Cutler et al. 1986) that the Beveridge Report and the *General Theory* “share a common political a priori”. I find the argument not entirely convincing, since the comparison between the two approaches brings us up against certain paradoxes, which have baffled both Keynes’s and Beveridge’s biographers.

The first paradox is noted by Skidelsky:

Keynes’s incuriosity about this battle [Beveridge and Social Security] is itself curious. The truth seems to be that he was not interested in social policy as such, and never attended to it. The sole question in his mind was whether the Exchequer could “afford” Beveridge.

(Skidelsky 2000: 270)

Skidelsky’s conclusion, which in the light of the common view taken of Keynes is itself paradoxical, is that “Keynes was never a passionate social reformer” (ibid.: 265). This evaluation takes Keynes off the Cambridge path as followed by the “good-doers”, such as Sidgwick, Marshall and Pigou, and has him in fact more attuned to a vision of society in which “freedom from the economic problem” would create the conditions for transforming human nature and thereby society. Thus Keynes made his plea for government intervention on the grounds of a more “conservative” social theory than Beveridge’s.

On the other hand, Keynes’s limited involvement in domestic issues during the years in which the Beveridge proposals were being formulated is explained by Moggridge “in part by his absences in the United States and Canada for long periods in 1941, 1943, 1944 and 1945; and in part he was probably deliberately excluded by the permanent Treasury officials from some of the key Committees and discussions” (Moggridge 1992: 695). Be this as it may, it is true that “there never was a comprehensive Keynes plan for maintaining full employment after the war. Keynes’s contribution to the famous White Paper on Employment Policy, issued in May 1944, was mainly by way of encouragement, commentary and

criticism, even though parts of it clearly reflected his theories” (Skidelsky 2000: 270–1). Evidently, therefore, Keynes’s involvement in the design of the two milestones of the Welfare State in Great Britain, national social insurance and full employment government policy, was rather limited.

The case of Beveridge is also interesting since he developed his ideas independently and, in the case of full employment, in opposition to Keynes.⁸ The paradox here is that Beveridge made his proposals on social reforms rest on the orthodox theory that Keynes was attacking. Beveridge taught himself economics studying Jevons and Marshall above all, and was drawn towards applied economics (facts and figures) rather than pure theory (concepts and vision).

In this respect, it is interesting to examine Beveridge’s comments on the *General Theory*, written while he was on holiday in Majorca with Sydney and Beatrice Webb in March 1936, recovering from a distressful period fraught with personal and professional anxieties (Harris [1977] 1997: 298–9).⁹ His comments, examined in conjunction with his farewell address as Director of the London School of Economics (LSE) (Beveridge 1937), show how little sympathy he had for Keynesian theory. Indeed, his hostility to the “new theory” was such that at the end of 1937 he came to the decision to engage in a study on unemployment, “purposely designed to correct the methodological heresies of Keynes’s *General Theory*” (Harris [1977] 1997: 351).

On reading Beveridge’s comments on the *General Theory*, one is astonished to see how difficult that book appeared to someone who had taught himself economics on the basis of Jevons and Marshall, and until then had been close to the ideology (although much less to the theory) of the LSE free market devotees, namely Robbins and Hayek. What strikes the reader is how little he understood of the basics of the multiplier and of Keynes’s argument against trusting in the effects of a fall in money wages in bringing about full employment.

A few quotations will suffice. Commenting on the passage where Keynes demonstrates that if the propensity to consume is 9/10, the multiplier is 10, so that for any given increase in public works the

⁸ “Beveridge in the late 1930s had scornfully rejected Keynes’s analysis of unemployment and there is no documentary evidence to suggest that he had changed his mind by 1941–42” (Harris [1977] 1997: 427).

⁹ Beveridge presented his comments at the Hayek seminar at the London School of Economics, but he was disappointed by its reception, as he wrote to Beatrice Webb in a letter of 9 July 1936: “I did not myself get quite as much as I had hoped out of the seminar discussion in the way of telling me whether my criticisms were right or wrong” (BEV 2/B/35/3).

secondary employment will prove 10 times the primary employment, Beveridge writes:

because out of a given increment of income the community will generally choose to consume nine-tenths and *invest one-tenth*, therefore with a given increment of investment however caused, the community will find its income increased by ten times the *amount of the new investment*.

(“Employment Theory and the Facts of Unemployment”
in BEV 9/B/23/4–5, emphasis added)¹⁰

Noteworthy here is the confusion between propensity to save and investment, and between income and investment. A few paragraphs on, Beveridge again misses the point, accusing Keynes of holding that “investment enriches, irrespective of the object of expenditure” (BEV 9/B/23/5) and once more he fails to see why “a rise in the rate of interest must always and in all circumstances reduce the volume of savings, because it discourages investment” (BEV 9/B/23/6). As for Keynes’s point that a reduction in money wages is unlikely ever to increase employment. Beveridge accuses Keynes of endowing labour “with some mystical quality making the demand for it in a market economy independent of the price asked for it” (BEV 9/B/23/10).

From these premises it is not surprising that his assessment is that “the *General Theory* does not in itself explain the actual phenomena of the economic system as we know it. [...] involuntary unemployment is not a proved fact but either an unproven assumption or a confusion of terms” (BEV 9/B/23/14).

Harris rightly describes Beveridge’s reading of the *General Theory* as “a shattering experience” (Harris [1977] 1997: 331). The key to his rejection, apart from the fact that – as we have seen – his command of economics was entirely self-taught, is revealed by one of his closing remarks: “If economics is a science, the answer to this question must be sought not by general reasoning but by analysis of the facts of unemployment and reasoning about the facts” (BEV 9/B/23/17).

This is the theme of his farewell address to the LSE, which can be taken as Beveridge’s manifesto against contemporary economics, whether Keynesian or of the LSE brand. His methodological stance is very much in the positivist vein:

It is the duty of the propounder of every new theory [...] to indicate where verification of his theory is to be sought in facts – what may be expected to

¹⁰ Reference to the Beveridge papers (BEV), held at British Library of Political and Economic Science, is given according to their archival classification.

happen or to have happened if his theory is true, what will not happen if it is false.

(Beveridge 1937: 464)

It had, however, a tinge of Robbins in it: “economics is concerned with human behaviour in the disposal of scarce resources” (Beveridge 1937: 462).¹¹

Robbins (1932) had claimed that arguments pertaining to ethics and political philosophy should be banned from economics. The message was that, while moral sciences deal with what ought to be, economics is concerned with what is. Keynes fought for the opposite view. Indeed, he was challenging economics to abandon the “modernist claim” to be a scientific study of society and become an investigation “into problems which seek to bring about defined or desired end states (or solutions) and clarify values” (see Marcuzzo 2004).

The premise of Keynesian economics, as we find it in the *General Theory*, is that “we cannot hope to make completely accurate generalisations” (CWK VII: 257) because the economic system is not ruled by “natural forces” that economists can discover and order in a neat pattern of causes and effects. The implication of this assumption is that the task of economics is rather to “select those variables which can be deliberately controlled and managed by central authority in the kind of system in which we actually live” (CWK VII: 257).

The goal is to change the environment within which individuals operate, so that moral and rational motives become the spring of action of the collectivity as a whole (CWK XVII: 453). Keynes’s approach, based on the categories of knowledge, ignorance and rational belief, is chosen as the appropriate method for a “moral science” such as economics that deals with complexity and judgement.

We may therefore take the profound methodological differences in their approach to economics to underlie both Beveridge’s inability to come to grips with the *General Theory* and Keynes’s conviction that it was a case of “two minds which have not truly met”,¹² since he reacted to

¹¹ However, Beveridge did not entirely endorse Robbins’s formalistic programme. See his comments to *The Nature and Significance of Economic Science*: “To be content with deducing the implications of scarcity, is to reduce economics either to the formality of one-dimensional geometry or (if we choose to multiply hypothesis as to data in preference to collecting data) to the futility of a parlour game” (BEV II/B/39/5).

¹² Keynes was keen to have his ideas tested “in conversation” with others. However, his interlocutors had to be attuned to his thinking or show a critical but sympathetic attitude. See Marcuzzo and Rosselli (2005).

Beveridge's comments, by pointing out to him "how very remote we are".¹³

However, in the making of his scheme, Beveridge sought help and assistance from Keynes – who responded readily and liberally – and soon afterwards he became a convert to Keynesianism, possibly under the influence of the group of progressive economists of Keynesian faith – including Joan Robinson, N. Kaldor, E. Schumacher – that he had brought together to assist him in an inquiry into full employment, which eventually became *Full Employment in a Free Society* (Beveridge 1944).

The story of Keynes's advice and help has been carefully reconstructed by Harris, Skidelsky and Moggridge, and is only outlined here. In March 1942 Beveridge wrote to Keynes suggesting a talk on how his scheme could be financed. Keynes reacted very enthusiastically and offered suggestions to make it financially more viable.¹⁴ According to Harris, "the co-operation of Keynes was to be of great importance to Beveridge over the next few months, both in enhancing the financial viability of his report and in smoothing the way for its reception in official circles" (Harris [1977] 1997: 400). This is borne out by Lady Beveridge's memoir: "[The Beveridge Plan] was scrutinized and approved by the unquestioned authority of William's close but highly critical friend in such matters, J.M. Keynes" (J. Beveridge 1954).

On substantive issues Keynes was not in favour of high taxes to pay for social benefits and pensions, the costs of which ought to be borne out by employers: "Should not the employer," he wrote, "meet the total cost of providing him with a healthy worker? If the unemployed were allowed to starve what would employers do when the demand for employment, seasonally or cyclically, increased again? Why should the general taxpayer pay for a pool of available dock labour?" (CWK XXVII: 224).

Secondly, he was in favour of making the State accountable to the taxpayer for the goods and services provided, associating "as closely as possible the cost of particular services with the sources out of which they

¹³ We have a glimpse of Keynes's pessimistic mood in general about the reception of his book, in the letter Beatrice Webb sent to Beveridge after reading the latter's comments to the *General Theory*, "I lunched [...] with Keynes's the other day, and found him very depressed about the reception of his book, and the hopeless disunity of opinion among abstract economists" (BEV 2/B/35/3).

¹⁴ Keynes's suggestions were heavily dependent on contemporary estimates of post-war national income, which were at their infancy and largely controversial. For a discussion of the gap between the "pessimistic" (Henderson's and the Treasury) versus the "optimistic" side (Stone and Keynes), see Moggridge (1992: 707–8).

are provided”, since he believed that “this is the only way by which to preserve sound accounting, to measure efficiency, to maintain economy and to keep the public properly aware of what things cost” (CWK XXVII: 225).

So while Keynes was appreciative of the “new features” of Beveridge’s Plan, namely “the extension of the social security benefits and contributions to the whole of the population, and not merely to the present contributory classes” (CWK XXVII: 252), he was concerned with the budgetary aspects of it. From the strictly economic point of view he was keener to make “public investment a counterweight to fluctuations of private investment” (CWK XXVII: 381), seeing “narrow limitations” in any plan aimed “to stabilize consuming capacity in dealing with depressions” (Keynes to James Meade, 8 May 1942, CWK XXVII: 206).

Both Keynes and Beveridge were concerned with the moral and social problems deriving from unemployment, but while Beveridge stressed the need to ensure everybody against the vagaries and fluctuations of economic activity, Keynes believed that “to provide an adequate material standard of life” was not the “real problem of the future”. He saw it rather as “how to organize material abundance to yield up the fruits of a good life”. For Beveridge, it was the human fight against scarcity, the plague of cycles in production and business confidence – as unpredictable as weather and natural calamities, as he saw them. Social insurance was meant to disjoint individual coverage from general economic performance. For Keynes it was the fight “to persuade [his] countrymen and the world at large to change their traditional doctrines” (CWK XXVI: 16). By making the future dependent on the economic success of an active social investment policy it would free individuals from the deprivations deriving from unemployment.

The two pillars of the Welfare State – distrust of market forces and, with it, reliance on government intervention to bring about full employment on the one hand, and lack of confidence in the power of liberalism to achieve economic security and social stability on the other, again making the case for government intervention — were formulated independently and, perhaps, even in opposition to one another. Beveridge, the Fabians’ heir, relied on neoclassical economic theory while Keynes, the revolutionary economist, relied on reformed liberalism for his social policy.

4. The Keynes–Beveridge Correspondence

The excellent and extremely well-documented biography of Beveridge by Jose Harris (1977) was being written when the edition of Keynes's *Collected Writings* (CWK) was under way; the revised edition was published (Harris [1977] 1997) and indeed makes use of the new evidence available, in particular on Keynes's attitudes and reaction to the Beveridge Report. I feel, however, that a comprehensive assessment of the relationship between Keynes and Beveridge and a comparison of their contribution to the Welfare State is perhaps still wanting.¹⁵ Studying their correspondence sheds light on their personalities and intellectual environment and may take us a step further in that direction.

The earlier extant letters between them go back to the eve of World War I, when Keynes – in his capacity as editor – was dealing with Beveridge's requests to have his work published in the *Economic Journal*. The first is “A Seventeenth-Century Labour Exchange” (EJ, September 1914), which Keynes found “exceedingly interesting” (JMK to WHB, 25 March 1914, BEV 2/B/13/18), in a letter also including praise of Beveridge's review of Pigou's *Unemployment* (EJ, June 1914), which appeared in the same issue. “I am glad”, Keynes wrote, “you criticise Pigou's treatment of the plasticity of wages theory. I entirely agree with what you say about it. I do not think he commits himself to an actual recommendation to the working classes to allow greater plasticity. But the natural suggestion of what he says is misleading”.

Pigou wrote – in advance of Keynes's *General Theory* – the first theoretical treatise on systematic unemployment (Pigou 1913; 1933). In the extant correspondence between Keynes and Pigou, we have five letters on their collaboration concerning *Wealth and Welfare* in 1913 (Bridel and Ingrao 2005).

Again, 1919 Beveridge submitted an article, “The Agricultural Factor in Trade Fluctuations”, about which he was very excited: “I am inclined to think”, he said in the accompanying letter, “that I have made something in the way of a small discovery in connection with cyclical fluctuation” (WHB to JMK, 20 December 1919, BEV 7/42/144). Keynes immediately replied that he would be “delighted to print” it, and eventually the article was published in two instalments, in the March and June issues of 1920.

¹⁵ The excellent paper by Dimand (1999) is somehow more focused on Beveridge than Keynes; while Komine (2010) addresses the issue of the integrated perspective on the welfare state by Beveridge, rather than comparing the two approaches, thus leaving perhaps room for the present investigation.

In February 1920 he sent in another article, “British Exports and the World Crops”, (WHB to JMK, 3 February 1920, BEV 7/42/147): in this case Keynes came up with some reservation (JMK to WHB, 7 February 1920, BEV VII/42/149), which Beveridge was prepared to accept (WHB to JMK, 9 February 1920, BEV 7/42/150).

Again, three years later, after agreeing to print Beveridge’s Presidential Address to the Royal Economic Society (“Population and Unemployment”) Keynes had some criticisms to make, proposing to print rejoinder of his own. Again Beveridge reacted very positively: “I certainly hope you will make a rejoinder so that truth may ultimately emerge from controversy” (WHB to JMK, 27 September 1923, BEV 7/37/8).

Throughout the period from 1914 to 1924, then, their relationship can be seen to have been friendly and collaborative; they seem to have been in general agreement on the issues involved, although it was mostly Keynes who came up with advice and comments on Beveridge’s works rather than the other way around. Things changed in 1931. In the late 1920s Beveridge had come around to wage-rigidity as explaining unemployment, possibly as a consequence of his work in the Coal Commission of 1925, whose members had persuaded him that the miners’ wages were too high, and certainly under the influence of Lionel Robbins he was converted to a belief in the self-regulating virtues of a market economy. During the 1929 crisis he wrote to Robbins: “The first essential is to restore the price-machine – in wage fixing and elsewhere” (Harris [1977] 1997: 321, 323).

It is of course a well-known fact that at The Economic Advisory Council’s Committee of Economists and at the Macmillan Committee, Keynes made a plea for protectionism to reduce unemployment, finding himself in a minority position and in contraposition with Lionel Robbins (Howson and Winch 1977; Eichengreen 1984). A group of people (among others, Beveridge, Hicks and Robbins) joined together under Beveridge’s chairmanship (CWK XX: 513) and opposed Keynes’s view, defending the free trade position. The collective effort produced a book (*Tariff: The Case Examined*)¹⁶ including a contribution by Beveridge, which he announced to Keynes with an interesting declaration of intent: “I am naturally anxious to make any public difference between economists appear to be as much as possible a difference of judgement as to what is expedient (as indeed I think it to be) rather than a difference as to scientific truth” (WHB to JMK,

¹⁶ The book (Beveridge 1931) included contributions by Benham, Bowley, Gregory, Hicks, Layton (the only one not a member of the staff of the School), Plant, Robbins and Schwartz. A substantial contribution was made by Dennis Robertson, who pulled out of the project only in August 1931. (I am indebted to a referee for pointing this out.)

14 January 1931, BEV 2/B/63/K). In March, six chapters of the book in the proof stage were sent to Keynes, who unsurprisingly criticized them in a letter of 23 March 1931 (CWK XX: 513–4). The next serious confrontation arose between them in 1936, when another interesting exchange occurred.

Since 1919 Beveridge had been Director of the LSE,¹⁷ making an enormous effort to manage transformation from a small academic endeavour into an international institution, with more than 3,000 students, and 120 members of staff. In the field of economics, Robbins and Hayek were the key figures, attracting foreign scholars and determined to make it the intellectual centre of free market culture. Hicks recalled of himself and his LSE colleagues that,

we seemed, at the start, to share a common view point, or even a common faith. The faith in question was a belief in the free market, or “price mechanism” that a competitive system, free of all “interferences”, by government or monopolistic combinations, of capital or of labour, would easily find an “equilibrium”. [...] Hayek, when he joined us, was to introduce into this doctrine an important qualification – that money (somehow) must be kept “neutral”, in order that the mechanism should work smoothly.

(Hicks 1982: 3)

Besides the natural rivalry with Cambridge, as a competing academic centre with an outstanding record of excellence in many fields, LSE economics was also opposed to the heritage of Marshall, Pigou and partial equilibrium, endorsing the Austrian and the general equilibrium approach in the tradition of continental authors such as Walras and Pareto. The controversy between Hayek and Keynes during 1931–33 seemed to have stretched these differences to the extreme notwithstanding the efforts of the younger and less “embattled” (J. Robinson 1951: viii) members of the two groups to find a common ground (Marcuzzo and Sanfilippo 2008). The situation came to a climax with the publication of the *General Theory*. A line was drawn between those who felt themselves in total agreement with Keynes and those who felt either misrepresented or alienated by it. In Cambridge, Kahn, Joan and Austin Robinson belonged to the former category, Pigou and Robertson to the latter. Sraffa was secretly sceptical. At the LSE, Durbin, Lerner and Kaldor converted to it, Hicks found a compromise, while Hayek, Robbins and Beveridge resisted, although only Hayek remained unconvinced to the end.

¹⁷ The position had first been offered by Sydney Webb to Keynes, who turned it down. See McCormick (1992: 13).

Keynes admitted to Beveridge in June 1936 that “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” (CWK XIV: 56).

Beveridge responded that by that time, thanks to Hicks’s article, he thought he had understood what Keynes “was driving at” and the matter was not discussed further. In September 1936 we see Keynes resuming his role of soliciting articles for the *Economic Journal* (JMK to WHB, 22 September 1936). In this case it was the “Analysis of Unemployment”, read at the *British Association for the Advancement of Science*, which Beveridge had already committed to *Economica* (WHB to JMK, 24 September 1936).

At the outbreak of the war Beveridge and Keynes, together with other veterans of World War I (“Old Dogs”), shared anxiety over the ability of government to tackle the problems of the war (CWK XXII: 15–16). They met at Keynes’s house in London and put forward strategies and policies (Harris [1977] 1997: 354) and it is likely that these discussions reverberated in Keynes’s *How to Pay for the War*.

The correspondence of those months in 1939–40 witnesses these concerns. On one occasion there was a minor diplomatic incident. In July 1940 Beveridge sent Keynes a memo, wishing to discuss how industry and government ought to be re-organized if the war was to be won. He went so far as to argue that state socialism and the service motive must be substituted universally for capitalism and the motive of personal gain (JMK/W/1/54–8). Keynes took him seriously and forwarded the memo to the Treasury’s Second Secretary, R. Hopkins (JMK to WHB, 1 August 1940, JMK/W/1/59-60),¹⁸ much to Beveridge’s alarm, who did not wish “to make too many enemies” (WHB to JMK, 2 August 1940, JMK/W/1/63).

The correspondence of March–October 1942 is entirely devoted to the Beveridge Plan. Keynes’s main objection to it was that it made pensions conditional only on retirement, which he found politically unacceptable. Beveridge resisted, made small concessions and in the end Keynes acquiesced: “After reading this further instalment”, Keynes wrote to Beveridge on 14 October 1942, “I feel confirmed in the feeling I expressed the other day, that it is a grand document. You can scarcely expect it will be adopted just as it stands, but it seems to me that you have got it into an extremely workable shape, and I should hope that the major and more essential parts of it might be adopted substantially as you have conceived them” (CWK XXVII: 255).

¹⁸ Reference to the Keynes papers (JMK), held at King’s College Cambridge, is given according to their archival classification.

Keynes had wished to make his maiden speech in the Lords debate on the Beveridge Report on February 24; he was prevented from doing so by the political sensitivity of the issues involved, which made him fearful of “disobliging” the Treasury, which had got itself “into a hideous mess over this Report”, as he explained to his mother on the eve of the appointed date (CWK XXVII: 256). The draft of his speech is, however, extant, and it reveals Keynes’s whole-hearted commitment and political support. The main point stressed there is (a) “there is no cheaper scheme on the map”; (b) “[it] is a relatively cheap scheme for the early period” (CWK XVII: 258). The crucial question for Keynes was whether the country could afford the future commitments which the scheme entailed. And his answer once again stressed the view that in the future “the economic problems of the day [...] will lie in solving the problems of an era of material abundance not those of an era of poverty” (ibid.: 261).

The extant letters of the last two years of Keynes’s life are interesting because they show their attitudes towards the *White Paper on Employment Policy* (1944), which later became known as being inspired by Keynes and Beveridge. Keynes was organizing a meeting at the Royal Economic Society to discuss it and invited Beveridge to contribute to the subject in the *Economic Journal* (JMK to WHB, 31 May 1944, BEV 9/B/30). Beveridge accepted and added, “As regards what I think about the White Paper [...] I do most heartily congratulate you and the economists on the distance to which you have moved the government. I shall do what I can to help to move them still further” (WHB to JMK, 5 June 1944, BEV 9/B/30).

On his return voyage from the United States, Keynes read *Full Employment in a Free Society* and reported to Beveridge that he found it “extremely good” (JMK to WHB, 16 December 1944, CWK XXVII: 380). Beveridge had hopes to be able to discuss points Keynes raised (WHB to JMK, 8 January 1945, BEV 2/B/44/1), but the extant letters do not reveal whether they ever did.

Finally, we have the last exchange relative to nominations to the British Academy, section IX, Economic Science. In 1942 Beveridge had suggested Robbins and Cole (WHB to JMK, 17 January 1942, BEV BA/1/80); in 1944 he agreed to put forward Hayek, but with scant enthusiasm since he felt he should have proposed Joan Robinson, who was “really much better than Hayek” (WHR to JMK, 28 February 1944, BEV 2/B/43/1).

Beveridge had really made a full turnabout and as far as economic ideas were concerned he had become closer to the most radical amongst

the Keynesians than to the holder of the torch of free market and liberalism.

5. Conclusion

In December 1942, a few days after the Beveridge Report was published, Beveridge married Juliet (Jessie) Mair, the controversial Secretary of the LSE and his cousin's widow, who had been a close friend for many years. In a volume of recollections, she recorded that Keynes's wedding present was the 1691 edition of W. Petty's *Political Arithmetic*, with the following inscription: "To Sir William Beveridge this book by the founder of his (and my) craft on the occasion of his contriving social security for the rest of us and *not forgetting himself*" (J. Beveridge 1954: 127).

The playful tone of Keynes's inscription seals the understanding reached between Keynes and Beveridge after their disagreement over free trade and the *General Theory*.¹⁹

While Keynes was able to be in tune with Beveridge's proposals at the time of his Report, Beveridge was unable to do the same with Keynesian theory when the *General Theory* appeared. I surmise that this was due to the revolutionary aspect of Keynes's theory, which took quite a long time to be accepted and absorbed. His path-breaking ideas were unacceptable to anyone accustomed to viewing questions of economics with the lenses of scarcity and allocative constraints. This may explain why Keynes was not too much bothered by the financial burden of a generalized insurance scheme since he believed that it would force the country to adapt its attitude to the future. "If we approach it with cringing and timidity, we shall get what we deserve. If we march on with confidence and vigour the facts will respond" (CWK XXVII: 260). This, it seems to me, is the intellectual and political legacy of Keynes: building the future on confidence, rather than deficit spending.

¹⁹ It is worth recalling here how in September 1931 in her diary Beatrice Webb contrasted Keynes and Beveridge: "In London, we lunched with Beveridge, who heartily dislikes Keynes and regards him a quack in economics. These two men are equally aloof from the common man, but they have little appreciation of each other; Keynes, the imaginative forecaster of events and speculator in ideas, his mind flashing into the future; Beveridge bound down to the past, a bureaucratic statistician, intent on keeping intact the inequality between the few who could govern and the many who must be governed, and believing in the productivity of the acquisitive instinct." (Quoted in Caldwell 2004: 174n).

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CHAPTER TEN

RE-EMBRACING KEYNES: SCHOLARS, ADMIRERS AND SCEPTICS IN THE AFTERMATH OF THE CRISIS

MARIA CRISTINA MARCUZZO

Today we have involved ourselves in a colossal muddle, having blundered in the control of a delicate machine, the working of which we do not understand. The result is that our possibilities of wealth may run to waste for a time perhaps for a long time.

(Keynes, *The Great Slump of 1930*, CWK IX: 126)

We cannot, as a community, provide for future consumption by financial expedients but only by current physical output.

(Keynes, *The General Theory*, CWK VII: 104)

1. Premise

While there has never been a real halt in the flow of scholarly literature, undoubtedly the 2008–09 crisis has seen an upsurge in the wave of references to Keynes, in the media, the economic press and political discourse.

The number of admirers has gone up and for the first time in a very long time those who look back to Keynes have outnumbered the sceptics. On the other hand, the Keynes revival has brought back to the fore doubts and objections to the relevance of Keynes's arguments to contemporary problems and issues.

In this chapter I investigate which aspects of Keynes's analysis and recommendations economists wish once again to see accepted and implemented and which are still rejected and misunderstood. I am also concerned to find out whether the "return to Keynes" plea is matched by original research into his work and how much is sheer rhetoric or relies on second-hand knowledge.

I will not attempt a systematic review of material published on this matter in the last couple of years; my more modest purpose is to illustrate a few cases and some issues. My point is that in the face of unqualified admirers and sceptics alike, scholarly investigation into Keynes's writings more than ever is called for in order to take stock of his work and teaching.

2. Government Deficit

The standard "return to Keynes" argument is the need for fiscal stimulus to boost the economy from the depths of recession. The burden of the deficit is not seen as the main drawback of government intervention, but a necessary measure to address a failure in aggregate demand.

There are still many economists who oppose this view, as witnessed by the manifesto sponsored by the Cato Institute and signed by 237 American economists (the most renowned among them being M. Bordo, J. Buchanan, J. Cochrane, E. Fama, S. Horwitz, D. McCloskey, A. Meltzer, E. Prescott, V. Smith, R. Whaples, and L. White) who refused to endorse the statement made by President Obama in January 2009 that "we need action by our government, a recovery plan that will help to jumpstart the economy". The signatories declared:

Notwithstanding reports that all economists are now Keynesians and that we all support a big increase in the burden of government, we the undersigned do not believe that more government spending is a way to improve economic performance. More government spending by Hoover and Roosevelt did not pull the United States economy out of the Great Depression in the 1930s. More government spending did not solve Japan's "lost decade" in the 1990s. As such, it is a triumph of hope over experience to believe that more government spending will help the US today. To improve the economy, policymakers should focus on reforms that remove impediments to work, saving, investment and production. Lower tax rates and a reduction in the burden of government are the best ways of using fiscal policy to boost growth.¹

Similarly, in the UK an open letter, signed by 20 economists,² was sent to the *Sunday Times* (14 February 2010) advocating a more rapid reduction

¹ See the manifesto available at: https://object.cato.org/sites/cato.org/files/pubs/pdf/cato_stimulus.pdf.

² Among them C. Goodhart, M. Desai, J. Vickers, D. Newbery, H. Pesaran, K. Rogoff, T. Sargent.

of Britain's budget deficit than currently planned, "to support a sustainable recovery".³

This pronouncement provoked a reaction in the form of two letters sent to the *Financial Times* (18 February), signed by R. Skidelsky and others 57 economists,⁴ and by R. Layard and eight more economists.⁵

In the first it is argued that the signatories of the *Sunday Times* letter "seek to frighten us with the present level of the deficit" but "they omit to say that the contraction in UK output since September 2008 has been more than 6 per cent, that unemployment has risen by almost 2 percentage points".⁶

The second letter points out that "it would be dangerous to reduce the government's contribution to aggregate demand" since it "would not produce an offsetting increase in private sector aggregate demand, and could easily reduce it".⁷

Concern about the size of the government deficit is not in itself a sign of opposition to the Keynesian argument,⁸ it is, rather, acceptance of the classical presupposition that supply creates its own demand, or of the "Treasury view" according to which public expenditure "crowds out" a corresponding amount of private expenditure.

Samuel Brittan (2010) has pointed out that the fiscal debate recently has been impoverished by lack of understanding that logically there in fact not two (pro or against the reduction of public deficit through curbing public expenditure) but four positions: there are also the options of reducing the level of public expenditure, matched by lower taxes, or leaving it at the same level, but in any case not urging the cuts in the deficit.

The dividing issue between Keynesian and anti-Keynesian positions is in fact the relationship which is established between the size of the deficit

³ "UK economy cries out for credible rescue plan", *Sunday Times*, 14 February 2010.

⁴ Among them M. Miller, V. Chick, P. De Grauwe, B. DeLong, S. Dow, J. P. Fitoussi, G. C. Harcourt, A. Kirman, R. Rowthorn, M. Sawyer.

⁵ Among them D. Hendry, A. Blinder, R. Solow, D. Vines.

⁶ "First priority must be to restore robust growth", *Financial Times*, 18 February 2010.

⁷ "Sharp shock now would be dangerous", *Financial Times*, 18 February 2010.

⁸ For instance it is acknowledged that the present situation of Britain, Greece, Spain (in 2010 running a deficit of over 13 and 11 per cent respectively), Ireland, Portugal and Italy (with figures of over 12 per cent, 8 per cent and 5 per cent) may stand in the way when invoking public expenditure to sustain aggregate demand.

and the level of income and unemployment.⁹ (For comparison of world unemployment in October 2009, see Figure 10.1). Since there is no theory to justify the “right” size of deficit nor the amount of government spending, the issue at stake is the scale of priorities: in times of recession and high unemployment – so the Keynesian argument goes – the priority is to sustain the level of aggregate demand, to increase the level of income and employment; this is the only way to reduce the size of the deficit and to prevent the vicious circle of lower income–lower government revenue.

Economists of Keynesian orientation have argued that the Stability and Growth Pact¹⁰ is at the root of the problem in Europe, since the European monetary system imposes a deflationary bias by restricting fiscal space. Others have argued that in the US the crisis originated from a distribution of income problem, that is, a private debt which has increased to offset the fall in wages and salaries. So the remedy is to substitute public for private debt, increasing expenditure on health, education and housing, so as to restore an adequate and sustainable level of aggregate demand (Barba and Pivetti 2009).

Moreover, Krugman has argued that, contrary to the widespread view that Germany which chose austerity did better than the US which went for Keynesian policy, as far as real gross domestic product (GDP) is concerned, data for 2008–10 show quite the opposite: during the last two years, actual government purchases of goods and services (excluding transfer payments from the federal government to states) have been higher in Germany than in the US (Krugman 2010; see Figure 10.2).

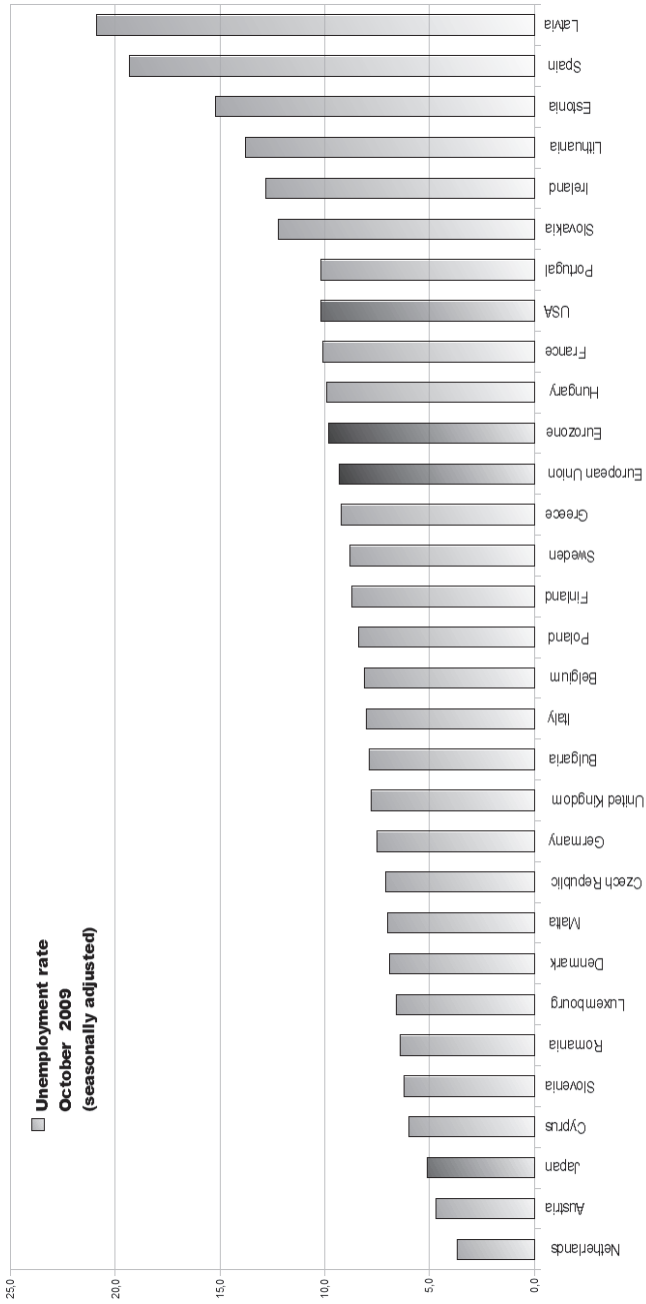
So the effectiveness of fiscal policies is back at the core of the disagreement between economists who favour or do not favour a “return to Keynes”, as it was in the 1970s between Keynesians and Monetarists.¹¹

⁹ In December 2009, Spanish unemployment rose to 19.3 per cent, (the highest in more than a decade), the nation’s jobless rate soaring to twice the Eurozone average. Unemployment in Greece reached 9.8 per cent in October 2009. See <http://www.banknoise.com/2009/12/la-disoccupazione-in-italia-confrontata-con-gli-altri-paesi-europei-usa-e-giappone.html>.

¹⁰ The countries within the European Union have agreed to a “Stability and Growth Pact” (SGP), which arbitrarily limits national government deficit spending to 3 per cent of gross domestic product (GDP), whilst limiting overall public debt as a percentage to GDP of 60 per cent.

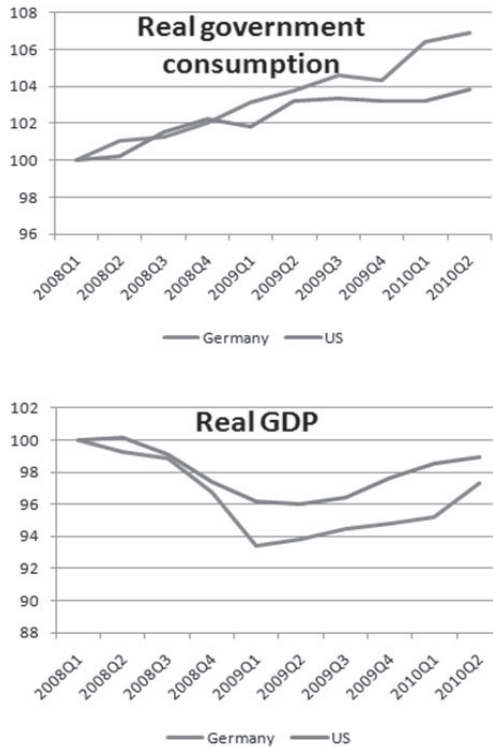
¹¹ The contemporary “austerity debate” is summarized in the article “Why the battle is joined over tightening”, *Financial Times*, 18 July 2010.

Figure 10.1. Unemployment rate (October 2009)



data: Eurostat - chat: banknoise.com

Source: Eurostat. Available at http://www.banknoise.com/wp-content/uploads/2009/12/unempl_20091220intl.png

Figure 10.2. Real government consumption and real GDP

Source: Krugman (2010).

I rather doubt whether econometric exercises designed to measure the impact of the current fiscal stimulus engineered by the countries of the Organisation for Economic Co-operation and Development (OECD) in recent months (see Table 10.1) will prove conclusive and persuasive.¹² As in the 1970s testing the values of the elasticities of the LM-IS curves helped neither contending party to win its case, estimates of the value of the multiplier associated with each fiscal measure are not going to regroup economists between the two camps.

¹² A recent study relative to 30 countries, concluded that “there is mixed evidence on the effectiveness of fiscal stimulus packages in generating employment gains in a recession” (Jha 2009: 25).

Table 10.1. Employment and output effects of fiscal stimulus packages

	Total fiscal package (% of GDP)	Employment elasticity of growth	Income multiplier effect (multiplier of 0.5)	Employment effect with income multiplier 0.5 (% age change)	Income multiplier effect (multiplier of 1)	Employment effect with income multiplier 1 (% age change)
Argentina	3.9	0.01	1.95	0.02	3.9	0.04
Australia	2.5	0.56	1.25	0.70	2.5	1.4
Belgium	0.5	0.57	0.25	0.14	0.5	0.29
Brazil	0.2	0.68	0.1	0.07	0.2	0.14
Canada	2	0.44	1	0.44	2	0.88
Chile	2.3	0.28	1.15	0.32	2.3	0.64
China	13	0.17	6.5	1.11	13	2.21
France	1.1	0.57	0.55	0.31	1.1	0.63
Germany	2.8	0.05	1.4	0.07	2.8	0.14
Hungary	3.8	0.03	1.9	0.06	3.8	0.11
India	0.3	0.36	0.15	0.05	0.3	0.11
Indonesia	1.2	0.43	0.6	0.26	1.2	0.52
Italy	0.3	0.74	0.15	0.11	0.3	0.22
Japan	2.3	-0.24	1.15	-0.28	2.3	-0.55
Korea	2.7	0.38	1.35	0.51	2.7	1.03

	Total fiscal package (% of GDP)	Employment elasticity of growth	Income multiplier effect (multiplier of 0.5)	Employment effect with income multiplier 0.5 (% age change)	Income multiplier effect (multiplier of 1)	Employment effect with income multiplier 1 (% age change)
Malaysia	7.9	0.67	3.95	2.65	7.9	5.29
Mexico	4.7	0.67	2.35	1.57	4.7	3.15
Netherlands	0.8	0.7	0.4	0.28	0.8	0.56
New Zealand	0.8	0.6	1.9	1.14	3.8	2.28
Norway	0.6	0.26	0.3	0.08	0.6	0.16
Philippines	3.7	0.76	1.85	1.41	3.7	2.81
Portugal	1.1	0.4	0.55	0.22	1.1	0.44
Russia	1.1	0.13	0.55	0.07	1.1	0.14
Saudi Arabia	11.3	1.11	5.65	6.27	11.3	12.54
South Africa	1.2	-0.23	0.6	-0.14	1.2	-0.28
Spain	0.8	0.72	0.4	0.29	0.8	0.58
Switzerland	0.3	0.1	0.15	0.02	0.3	0.03
Thailand	2.8	0.38	1.4	0.53	2.8	1.06
United Kingdom	1.3	0.37	0.65	0.24	1.3	0.48
United States	5.6	0.2	2.8	0.56	5.6	1.12
Vietnam	0.9	0.35	0.45	0.16	0.9	0.32

Source: Jha (2009).

However, since Keynes's original argument has seldom been reappraised it is worth considering it more carefully.

Commenting on the Report of Steering Committee on Employment (1944), Keynes objected that "it would be a *failure* to adopt a remedy for severe cyclical unemployment which may have [the] effect" to destabilize the national budget since "measures to stabilise the national income are *ipso facto* measures to stabilise the national budget" (CWK XXVII: 366). And he continued:

The Committee give the impression that, whilst the measures they propose to avoid unemployment are admittedly necessary and advisable, a price has to be paid for them in the shape of budgetary deficits and perhaps a consequent weakening in international confidence in our position. Exactly the opposite is the truth. It would be a failure to take such measures which would inevitably unbalance the budget and weaken confidence. Is it supposed that slumps increase the national wealth?

(Ibid.)

Thus Keynes's first tenet against traditional thinking is based on reversal of the causality relation between deficit budgeting, level of income and international confidence in a country.

The second tenet is that public expenditure as a means to reduce unemployment should be interpreted as a means to increase aggregate demand rather than to adjust supply to the *existing* level of demand.

In the so-called "pro free market" literature, Keynes's position is ridiculed as being based on the "digging holes in the ground" argument: it does not matter how public money is spent, as long as it is spent, since it will generate income and through the multiplier the savings necessary to finance the initial expenditure.

Keynes's "digging holes" suggestion is meant to illustrate the principle, not to provide a blueprint of "useful" public work schemes. He illustrates the point with reference to expenditures on goods which have no useful purposes from the point of view of consumption, but which nevertheless produce the desired effects.

Gold mining, which is just another form of unearthing bottles dug in the ground, or pyramid building had positive effects on income and employment because they yielded fruits that "could not serve the needs of man by being consumed" and therefore do not "stale with abundance" (CWK VII: 131). Keynes then writes:

Just as wars have been the only form of large-scale loan expenditure which statesmen have thought justifiable, so gold mining is the only pretext for digging holes in the ground which has recommended itself to bankers as

sound finance; and each of these activities has played its part in progress – *failing something better.*

(Ibid.: 130; emphasis added)

There are two points here. The first is that “it would, indeed, be more sensible to build houses and the like; but if there are political and practical difficulties in the way of this, the above would be better than nothing” (Ibid.: 129). The political difficulties arise mainly from “the education of our statesman on the principles of the classical economics” (Ibid.). The second point is that expenditure on “useful things” may not be as effective: “Two pyramids, two masses for the dead, are twice as good as one; but not two railways from London to York” (Ibid.). The argument is that the decreasing marginal efficiency of investment, “unless the rate of interest is falling *pari passu*”, sets a limit to the possibility of increasing the stock of wealth by means of “useful” forms of loan expenditure.¹³ Waste results not when expenditure is directed to objects which are not “useful”, but when they are not “economically” viable.

The purpose of increasing aggregate expenditure is to generate income and employment, and this may not be sufficient to increase the stock of useful wealth. In Keynes’s argument, financial availability is not the constraining factor in the augmentation of objects which “could serve the needs of man”, as are the constraints of their diminishing of marginal utility and the provisions for user and supplementary costs to maintain them.

3. Uncertainty and Probability

Many have argued that among the failures that contributed to the financial crisis it is pre-eminently the failure of ideas as originating in the new macroeconomic paradigm that developed during the 1970s and 1980s, where “consumers and firms [...] know the statistical distributions of all the shocks that can hit the economy. As a result, they can make scientifically founded probabilistic statements about all future shocks. In this world of God-like creatures, there is no uncertainty, there is only risk” (De Grauwe 2010: 157).

¹³ “‘Loan expenditure’ is a convenient expression for the net borrowing of public authorities on all account, whether on capital account or to meet a budgetary deficit. The one form of loan expenditure operates by increasing investment and the other by increasing the propensity to consume” (CWK VII: 128n).

This is the main point in Skidelsky's latest book: "underlying the escalating succession of financial crises we have recently experienced is the failure of economics to take uncertainty seriously" (Skidelsky 2009: 188).

The "return to Keynes" is interpreted here as the need to take on board his division of economics (CWK VII: 293–94) between "the study of those economic activities in which 'our views of the future are [...] reliable in all respects' and the study of those in which 'our previous expectations are liable to disappointment and expectations concerning the future affect what we do today'" (Ibid.). The former allows for probability calculation, while the latter is dominated by the notion of uncertainty.

Keynes reached this conclusion on the basis of his theory of probability. While it cannot be fully analysed here, the main point can be outlined following Lawson (1985) and Roncaglia (2009).

Keynes's definition of probability (P) is that of a logical relationship between a proposition h (premise) and a proposition a (conclusion). If knowledge of h (premise) allows for a rational belief in a (conclusion), there is a probability relation of degree α (CWK VIII: 4). This description is supplemented by another concept, the "weight of the argument", which is positively correlated with the "magnitude" of the evidence of h . It is an indicator of confidence, providing a broader base for the rational belief. So, while probability establishes the degree of rational belief in the conclusion, the weight expresses the confidence in that probability.

How does uncertainty get into the story? To answer the question, we need to distinguish between two types of knowledge, that is, "that part of our rational belief which we know directly and that part we know by argument" (Ibid.: 2). Knowledge is thus obtained either "as the result of contemplating the objects of acquaintance" (Ibid.: 18) or through the probability relation.

If, in the probability relation:

$$a | h = P \quad (\text{A})$$

we define a as the primary proposition and the probability relation (A) as the secondary proposition, uncertainty can be defined as the absence of a secondary proposition, or the lack of a probability relationship. It refers to an immeasurable relationship between premise and conclusion *in the absence* of a secondary proposition. In the absence of a secondary proposition, no comparison between magnitudes of probabilities of different contingent outcomes is possible, and uncertainty prevails.

"Thus uncertainty, is not merely a situation in which the probability relation is known and the primary proposition, a say, relative to the

evidence, gives rise to a numerical probability that is less than unity” (Lawson 1985: 914).

It refers to all those cases, Keynes writes, “in which no rational basis has been discovered for numerical comparison. It is not the case here that the method of calculation, prescribed by theory, is beyond our powers or too laborious for actual application” (CWK VIII: 30).

It follows that we cannot hope to remove uncertainty by becoming more skilful in calculation or by collecting more information. It is uncertainty which we cannot cope with by means of probability (Svetlova and Fiedler 2011).

Why does Keynes’s distinction matter? First, it rejects the presupposition that risk can be measured and allocated in such a way as to prevent uncertainty of the outcomes. This is at the root of the current crisis and financial instability, as pointed out by Minsky ([1970] 1982)¹⁴ long ago and recently repeated by several commentators of Keynesian orientation.

Not distinguishing *uncertainty*, which is not calculable, from *risk*, which is, banks, embracing the assumptions of neoclassical or efficient markets finance with mathematical algorithms, believed that they were able to calculate risk with a “high probability of being right”.

(Bresser-Pereira 2009: 12)¹⁵

The consequence of embracing the assumption that all risks can be calculated, following the “efficient market economics” rather than a type of economics inspired by Keynes, has been to increase rather than reduce the frequency of financial crisis, as many studies have demonstrated.¹⁶

A number of studies comparing the 1930 crisis with the present meltdown have almost unanimously shown how in the recent crisis the behaviour of the monetary authorities that adopted Keynesian policies of reducing interest rates and increasing liquidity rather than relying on the allegedly self-adjusting market forces, has drastically curbed the fall in income and employment.

¹⁴ In Minsky’s words, “the intrinsically irrational fact of uncertainty is needed if financial instability is to be understood” ([1970] 1982: 120).

¹⁵ According to Roncaglia (2009: 496 n18) the distinction between risk (cases involving quantitative probabilities) and uncertainty (cases in which probabilities are non-measurable) is to be found in Knight rather than in Keynes.

¹⁶ According to Bordo et al. (2001), between 1945 and 1971 the world experienced only 38 financial crises, while from 1973 to 1997 it went through 139 such crises.

Secondly, reliance on the risk calculation of financial assets has loosened the connection between the monetary and real sides of the economy. “The increasing instability of the financial system is a consequence of a process of the increasing autonomy of credit and of financial instruments from the real side of the economy: from production and trade” (Bresser-Pereira 2009: 19).

4. The State of Economics

The remark made in Blanchard (2008) that “the state of macro is good” is often quoted in a derogatory sense. What is the good of an approach that failed to accommodate the *facts* of the current crisis?

Blanchard (2008: 13) openly admits that in the basic NK (New Keynesian)¹⁷ model there is no unemployment, but he believes that the problem can be “fixed” by introducing a more sophisticated explanation of the *real* and *nominal* wage rigidity assumption as prevailing in the labour markets.

Blanchard is also adamant that the model “falls short of the mark” in assuming an “arbitrage approach” to the determination of the term structure of interest rates and asset prices, leaving no room to the role that financial institutions play in the economy. However, his optimism – “one can be confident that progress will happen rapidly” – is simply anchored to the “*urgency* of understanding the current financial crisis” (Blanchard 2008: 18; emphasis added).

On the other hand, the 2008 Dahlem Report (Colander et al. 2009),¹⁸ while denouncing the “*systemic failure of the economics profession*”, before in predicting and now in understanding the crisis, invoke the legacy of economists of alternative traditions,¹⁹ failing to mention Keynes as a

¹⁷ The NK model, “which has largely replaced the IS-LM model as the basic model of fluctuations in graduate courses” (Blanchard 2008: 10) is made up of three equations. Aggregate demand, derived from maximization condition of consumers, is set equal to consumption (no investment) and made a function of interest rate and future expected consumption. The price equation gives inflation as a function of expected inflation and of the output gap, that is, the actual output minus what output would be absent nominal rigidities. The third is a reaction function – Taylor’s rule – giving the real interest rate chosen by the central bank as a function of inflation and the output gap.

¹⁸ It is the Report of the working group on “Modeling of Financial Markets” at the 98th Dahlem Workshop, Dahlem, Germany, 2008.

¹⁹ The names mentioned in the Report are Walter Bagehot, Axel Leijohnufvud, Charles Kindleberger and Hyman Minsky.

source of inspiration. In their critique of the prevailing approach, they focus, rather, on the study of interactions and connections between actors as the missing feature of current macro analysis.

Their research agenda include items such as study of the interconnectivity of the economic system (mainly through network analysis), the informational role of financial prices and financial contracts, and the construction of indicators “warning” of bubble formation.

Likewise, the pitiless *j'accuse* of the “complete markets macroeconomics”²⁰ by W. Buiter is accompanied by the belief that the future “belongs to behavioural approaches relying on empirical studies on how market participants learn, form views about the future and change these views in response to changes in their environment, peer group effects etc.” (Buiter 2009).

The profession and many of its leading journals still remain in the thrall of free-market thinking while other economists get very little hearing, their work largely ignored and marginalized. Very few cases of recantation are on record. A notable case is Richard Posner, who in September 2009 made a public endorsement of Keynes:

Until last September, when the banking industry came crashing down and depression loomed for the first time in my lifetime, I had never thought to read *The General Theory* [...]. Baffled by the profession’s disarray, I decided I had better read [it]. Having done so, I have concluded that, despite its antiquity, it is the best guide we have to the crisis.

(Posner 2009)

Another case is Gregory Mankiw, who in November 2008 repudiated the judgment he had made in 1992 that *The General Theory* was an “out dated book”, saying: “If you were going to turn to only one economist to understand the problems facing the economy, there is little doubt that the economist would be John Maynard Keynes” (Mankiw 2008).

Thus while welcoming the wind of “return to Keynes”, we must not be oblivious to the fact that there has been very little change in the positions held in the professions. For instance, in response to Posner, Gary Becker reiterates the usual “sticky wage” fallacy in interpreting Keynes:

Keynes and many earlier economists emphasized that unemployment arises during recessions because nominal wage rates tend to be inflexible in the

²⁰ “Both the New Classical and New Keynesian complete markets macroeconomic theories not only did not allow questions about insolvency and illiquidity to be *answered*. They did not allow such questions to be *asked*” (Buiter 2009).

downward direction. The natural way that markets usually eliminate insufficient demand for a good or service, such as labor, is for the price of this good or service to fall. A fall in price stimulates demand and reduces supply until they are brought back to rough equality. Downward inflexible wages prevents that from happening quickly when there is insufficient demand for workers.

(Becker 2009)

Moreover the “return to Keynes” in many cases turns out to be lip service with very little original work done on those aspects of Keynes which are relevant to the present recession and crisis of economics. P. Krugman and J. Stiglitz have been very vociferous in the media in propounding and defending Keynesian ideas. While Stiglitz has built his academic reputation by introducing rigidities, market imperfections and asymmetrical information into the “classical synthesis” model, Krugman has remained critical of the New Keynesian approach and seems, therefore, closer to Keynes’s main message in *The General Theory*.²¹

The strand of literature which has remained faithful to Keynes and is accused of “preaching to the converted” relies, with few exceptions, on scholarly work done in the 1980s and 1990s. I believe that there are areas in which we can expand the scope of the “return to Keynes” agenda and which should be taken up in the current debate.

5. A Research Agenda

The economics of Keynes is not just about government spending and injection of liquidity in times of crisis, but also about international cooperation on matters of finance, primary commodities, and international payments to provide the appropriate framework to a market economy. It is

²¹ See Wray’s nice description of the “message”:

Entrepreneurs produce what they expect to sell, and there is no reason to presume that the sum of these production decisions is consistent with the full-employment level of output, either in the short run or in the long run. Moreover, this proposition holds regardless of market structure – even where competition is perfect and wages are flexible. It holds even if expectations are always fulfilled, and in a stable economic environment. In other words, Keynes did not rely on sticky wages, monopoly power, disappointed expectations, or economic instability to explain unemployment. While each of these conditions could certainly make matters worse, he wanted to explain the possibility of equilibrium with unemployment. (Wray 2007: 3).

the conviction that markets and economic behaviour are to be guided by a logic of coordination and rules, rather than left to the pursuit of individual interests and to the freedom resulting from the lack of public intervention and regulation by the institutions. It incorporates a view of rational behaviour under uncertainty, where reasonableness as opposed to rationality is praised (see Marcuzzo 2011). While irrationality (“animal spirits” and “herd behaviour”) may at times dominate investment decisions or financial markets, ample room is left to rationality bounded by knowledge, judgment and experience.

In their recent book, Akerlof and Shiller (2009) explicitly draw from Keynes the notion of “animal spirits” as opposed to “rationality” to explain behaviour in the economy. Driving human actions are confidence, fairness, corruption, money illusion and stories, which are the “real motivations for real people” (Ibid.: 174). While I have some doubts that their “animal spirits” are what Keynes meant by them, I agree that they capture the distrust in the Benthamite calculus which underlies the economic theorizing that Keynes was firmly opposed to.

A distinguishing feature of Keynes’s approach is also to be seen in a conception of economics as extension of possibilities, as opposed to the logic of scarcity; it is an appeal to judgment on the basis of the circumstances and a plea to exercise of the imagination and creativity in seeking solutions, rather than an appeal to the timeless “iron laws” of a physical science. Keynes’s economics is a “moral” science which “deals with introspection and with values [...] it deals with motives, expectations, psychological uncertainties” (CWK XIV: 300).

I would like to give a couple of examples of the directions in which today’s favourable wind of “return to Keynes” could drive the research agenda.

The first is appraisal of Keynes’s contribution to finance theory, which has been overshadowed by almost exclusive attention to the effects on economic aggregates expressed in real terms of expenditure policy measures.

Keynes was led from his early belief that rational agents stabilized financial markets through arbitrage and speculation to the realization that markets can remain unsettled, which explains why he claimed that *institutions* are needed to maintain order in those markets.

De Cecco (2010) and Kregel (2010) have made important contributions towards an understanding of the development of Keynes’s thoughts on finance from the *Tract* to *The General Theory*, providing further theoretical grounds to explain why he mistrusted markets. The basic ideas are: unarbitrated margins preventing the law of one price from prevailing

in financial markets may be widespread occurrence; the “beauty contest” – picking what one thinks others are most likely to think that others think are the best choices – is the framework within which decisions are made and actions carried out in stock markets;²² “noise trading” – when uninformed agents derail the operations of rational agents – sends the market in unstable directions. In conclusion, much of what is “new” in contemporary behavioural finance can be found in Keynes’s “old” bottles.

The second line of research is in the area of reform of the institutions in charge of overseeing the international system of payments and taking action to smooth prices and output of those commodities which play a crucial role in international trade.

Two issues preoccupied Keynes throughout the whole of his theoretical and practical activity: monetary reform and the stabilization of commodity prices. This can be appreciated if we take into account the unpublished material, at the level not only of theoretical reflection but also of Keynes’s concrete experience as a speculator, mainly on the futures markets for raw materials and money.²³

Keynes’s conviction was that there are strong links between fluctuations in prices of primary commodities and agricultural products on the one hand, and financial crisis and structural trade imbalances on the other. He held that in the absence of buffer stocks for commodities, and with insurance against price volatility based only on market mechanisms, the system is doomed to instability and any policies aiming at stabilizing commodity and currency prices must go hand in hand with reform of the international monetary system.

While it appears that some of the ideas prevailing before the crisis, namely that financial markets should be deregulated, that private ownership yields more efficient results, that governments should balance their budgets, and that central banks should only aim at price stability, are losing ground, the demand for a new set of rules to govern international trade, currency and financial markets is not satisfactorily catered for. The suggestion here is to take a fresh look at Keynes’s wide range of proposals (searching through his less known writings) and not to make do with simple-minded so-called Keynesian policy. The risk is that “hydraulic” Keynesianism – “stop and go” policies – may again take the lead, losing

²² “In the short run one does not win by picking the company most likely to succeed in the long run, but by picking the company most likely to have high market value in the short run” (Akerlof and Shiller 2009: 133).

²³ A preliminary inquiry can be found in Fantacci et al. (2012) and in Fantacci et al. (2010).

track of the theoretical basis that supports them, and again squandering the opportunity to exploit to the full the richness of Keynes's thought.

6. Conclusions

According to Wolf (2008), there are "three broad" lessons to be derived from Keynes's teaching. The first is to discard the notion of "efficient markets" and to endorse the notion of uncertainty; the second is to accept that the economy cannot be analysed or managed in the same way as an individual business; the third is to disown the belief that individual self-seeking behaviour guarantees a stable economic order.

Will these lessons find their way back into the corpus of economic teaching and research agenda?

The boost to aggregate demand through government expenditure and injection of liquidity into the system to fight depressions and offset credit crunches are policy recipes also invoked by people of non-Keynesian persuasion, whose searches for alternatives to mainstream economics look in different directions. Thus, a new research agenda is needed to provide food for thought to those sceptics who doubt the utility of Keynes's ideas in rebuilding an alternative paradigm, and also to admirers who have little and narrow acquaintance with Keynes's writings.

While "the return to Keynes" wind is certainly to be welcomed, it may not outlive the present crisis. Scholars and admirers of Keynes may fail to persuade sceptics and opponents, and there is no telling whether a new generation of economists will take today's lesson to heart. The hope is that Max Planck's *dictum* (1950: 33) quoted in Kirman (2009) applies not only to a "new" but also to an "old" theory: "a new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it".

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CHAPTER ELEVEN

WHATEVER HAPPENED TO THE KEYNESIAN MULTIPLIER?

MARIA CRISTINA MARCUZZO

1. Premise

The focus of this chapter is the issue of the two-way link between economic thinking and facts. I will not attempt to address the complex issue of how theories are confirmed or falsified, here I wish only to explore the circumstances that prompt the return of ideas previously discarded or forgotten because they are believed to have been either disproved or surpassed by a better theory. The point has been nicely argued in a recent paper:

Understanding in economics does not proceed cumulatively. We do not necessarily know more today than we did yesterday, tempting as it may be to believe otherwise. So-called “lessons” are learnt, forgotten, re-learnt and forgotten again. Concepts rise to prominence and fall into oblivion before possibly resurrecting. They do so because the economic environment changes, sometimes slowly but profoundly, at other times suddenly and violently. But they do so also because the discipline is not immune to fashions and fads.

(Borio 2012: 1)

In recent times facts are increasingly identified with empirical estimates of models which are believed to incorporate the progress made in the economic literature. These “facts” are heavily dependent on the choice of the models and the methodology employed to find them. The relationship between facts and theory has become opaque and we may reasonably challenge the motives behind the discovery of “facts”, for they tend to be recognized or ignored according to the ebbs and flows of academic fashions.

Such is the case of the Keynesian multiplier, which has a story of alternate acceptance and rejection in the over seventy years of its existence. After more than twenty years of neglect and suspicion by the majority of the profession it has come back into favour. The history of this concept and its fortune with empirical testing provides an interesting illustration of the cyclical pattern of economic ideas.

A recent article in the *Financial Times* underlined how “In the 1950s and 1960s, when Keynesianism was at its height, the multiplier was generally assumed to be about 2. Then in the 1990s and 2000s, these estimates gradually dropped, leaving the consensus range about 0.5–0.7 by 2009” (Davies 2012: 3). This is in striking contrast with the current figures of 0.9–1.7 presented in the latest *World Economic Outlook* by the International Monetary Fund (IMF 2012).

So the question arises whether we are witnessing a change in the structure of the economy or in the model chosen in the estimates, or indeed in the theory behind it. In the search for an answer, first, I sketch out the story of the multiplier up to the onset of the 2007–8 crisis (section 2), second, I look at the assumptions preventing the multiplier from being positive and greater than 1 in modern macroeconomics models (section 3), third, I trace out the resurgence of Keynesian thinking in the aftermath of the current recession (section 4) and, finally, I review the “facts” for the explanation of which the multiplier appeared once again a useful tool (section 5). In the concluding section, I claim that reasoning based on the multiplier remains valid and useful in our present times.

2. The History of the Multiplier

The concept of the multiplier was elaborated by Richard Kahn in the summer of 1930 – drafting began in August during a holiday in the Tyrol – to give support to Keynes’s intuition that an inflow of investment in public works would bring about an increase in income greater than the initial expenditure (Kahn 1984: 91). In 1929 – in *Can Lloyd George Do It* – Keynes endorsed the idea of public spending as a way out of the crisis and set his “favourite pupil” to work out the details.

The article containing the basics of the multiplier was published in the *Economic Journal* in June 1931 (Kahn 1931) and although the idea might not have been entirely new (see Kent 2007), it was in association with Keynes’s *General Theory* that it became known and used in economic policies and forecasting. The importance of the multiplier essay lies in providing the terms for analysis of the conditions that see an increase either in the level of prices or in the quantities (or a combination of the

two) in aggregate given an increase in demand (in this particular case public investments in road building).

Kahn set about studying the effects of an increase in investment on overall production in terms of the supply and demand of consumption goods in aggregate in short-period conditions. If the level of demand is high, then the productive capacity will already be made good use of, and greater use will entail an increase in costs and thus in prices. But if, on the other hand, the level of demand is low, then plant and equipment will be largely idle and production can therefore be stepped up without any appreciable increase in unit costs and prices.

The limitation of that as yet unripe formulation of this innovative approach was the failure to make clear the fundamental implication of the multiplier, namely the necessary equality of savings and investments. Kahn attributed this difficulty to the fact that the article – which also included the findings of Meade (1993) – took as frame of reference the definitions of saving and income adopted in the *Treatise on Money*. Kahn himself made it clear: “what we had done – but *failed completely to realize* – was [...] to establish the identity of saving and investment” (Kahn 1984: 99, emphasis added) and that it was rather with the article “The Financing of Public Works: A Note”, published in September 1932, that he finally abandoned the *Treatise* definition of savings (retained in the multiplier article). If, in fact, savings are defined “in the ordinary sense of the aggregate of the excess of individuals’ receipts over their expenditure on consumption[,] savings are *always and necessarily* equal to investment” (Kahn 1932: 494).

Some commentators hold that it was after reading the article by Jens Warming published in the *Economic Journal* in June 1932 that Keynes and his immediate entourage properly appreciated the role of the savings function in determining the equilibrium level of income. In fact it took Keynes a couple of years to incorporate the multiplier in his new theory based on the principle of effective demand, and only after publication of the *General Theory* did the multiplier acquire full visibility.¹ For many years afterwards – owing to the widespread interpretation through the IS-LM model – the multiplier was construed as a formula showing that any increase in autonomous expenditure guaranteed an increase in income greater than the amount originally spent, provided of course that conditions of less than full employment prevail. Deficit spending, i.e. government expenditure greater than tax revenue, became justifiable on two grounds: (a) it increases income; (b) it generates the savings (which are a function of income) necessary to finance it.

¹ See Keynes ([1933] 1972); see Marcuzzo 2002.

This “Keynesian consensus” lasted for almost thirty years until it was seriously challenged by the Monetarist assault of the late 1960s. Building on his (and Franco Modigliani’s) earlier work on the consumption function, Milton Friedman cast doubts on the efficacy of fiscal policy. Both the permanent income hypothesis and the life-cycle approach to consumption were shown to be empirically better supported than the decreasing marginal propensity to consume out of current income envisaged by Keynes, therefore leaving little room for the working of the multiplier.

The monetarist Counterrevolution was pushed further by Robert Lucas and the New Classical economists well into the 1990s, with feeble defence by the New Keynesians, who relegated the efficacy of the multiplier to the very short period when prices and wage rigidities prevented the system from getting into full employment equilibrium. Keynesian economics was put in mothballs, as Lucas recorded:

One cannot find good, under-forty economists who identify themselves or their work as “Keynesian”. Indeed, people even take offence if referred to as “Keynesians”. At research seminars, people don’t take Keynesian theorizing seriously anymore; the audience starts to whisper and giggle to one another.

(Quoted in Mankiw 2006: 34)

Well into the 2000s the profession remained converted to the new wisdom, and free market economics ruled the roost in the profession, while anti-government intervention sentiments remained strong in institutions like the World Bank and the IMF and in influential media such as the *Financial Times* and the *Economist*. The classical arguments against short-term policy interventions – the lags in making economic policy and further lags in the implementation and effects after the policy is enacted – coupled with Lucas’s assumptions on the countering effects of expectations and actions of rational agents who observe the government’s policy process had made it appear practically impossible for policymakers to time fiscal policy actions to stabilize the economy. So the author of a recent overview of the empirical studies on the multiplier could conclude that “Before 2008, the topic of stimulus effects of fiscal policy was a backwater compared to research on monetary policy” (Ramey 2011: 673).

3. Behind the Rebuttal of the Multiplier

What are the forces said to prevent the multiplier from being positive and greater than 1 according to modern macroeconomics? There are two

relevant assumptions made in modern theory (Dynamic Stochastic General Equilibrium or DSGE models) to justify rejection of the Keynesian multiplier:

- (a) consumers are said to be forward-looking, taking into consideration permanent income and discounting future tax increase (wealth effect), so private demand offsets public expenditure; the credibility of fiscal policy may reinforce the wealth effect whenever consumers believe that the measures undertaken by the government are credible and permanent, rather than non-credible and temporary;
- (b) in Real Business Cycle models prices and wages are fully flexible, competition is perfect and full employment is attained, so there is no scope for an induced increase in aggregate demand; in the New Keynesian models some frictions in goods, labour and financial markets are allowed, which account for some short-term output effect.

So the main drivers are rational expectations (or perfect foresight) guiding consumer choices, with perfect markets as a description of the working of the macroeconomic system. On the contrary, in the Kahn–Keynes approach perfect foresight and full rationality are not assumptions which can be applied in real economic systems and this in itself would prevent attainment of full market equilibrium, even if perfect competition and flexible prices and wages were the norm. The Keynes approach acknowledges the necessity to take on board the division of economics between “the study of those economic activities in which our views of the future are [...] reliable in all respects” (CWK 7: 293) and the study of those in which “our previous expectations are liable to disappointment and expectations concerning the future affect what we do to-day” (Ibid.: 293–94). The former allows for probability calculation, while the latter is dominated by the notion of uncertainty (Marcuzzo 2013).

The assumption of perfect foresight was discredited after the 2007–8 events, inducing some modifications in standard macro-models to incorporate limited rationality and a degree of rigidities in the goods, labour and financial markets. However, the exercise was conducted within a theoretical framework which excluded employment of the multiplier not only to measure the impact of government expenditure (or taxation) but as a tool to conceptualize the relevant forces at work in the economy. The “remedies” generally proposed to overhaul the mainstream approach (behavioural economics, rejection of the efficient market hypothesis and extirpation of the DSGE macroeconomic model) have not fixed the problems with orthodox theory, which ultimately rest with the method and

substance of neoclassical economics. In fact Alberto Alesina (2012: 431) readily admits:

dynamic general equilibrium models [...] are large models of the entire economy in which fiscal policy is one of the variables involved. As predictive tools, the results of these models very much depend on the assumptions that you make to begin with. If you assume large multipliers, then you will get out a certain effect of fiscal policy, and vice versa. They are very useful predictive models, but what they spit out is very much affected by what is put in as assumptions.

A distinction was made by Keynes himself 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” (CWK 7: 122).

It has been aptly stated that the logical multiplier principle “is a theory of the ‘order of events’ in that it makes a distinction in macroeconomics between the expenditure that forms and the expenditure that disposes of national income” (Bailey 2004: 130).

Moreover, the whole point of the Keynesian argument is that demand derived from individual maximizing behaviour is notional and unless matched by a corresponding capacity to pay, is not actual expenditure or effective demand.

What has been the object of rebuttal in the forty years of Keynesian dissent is the logical theory of the multiplier, and the revival in interest in the concept since 2011 amounts to reluctant acceptance that the empirical estimates, in times of crisis and unemployment, yield a value well above 1.

This is the conclusion reached in a recent review article on the theories behind the multiplier:

Summing up, one can see that the different types of models will deliver fiscal multipliers of almost any magnitude. Moreover, even models of a particular class can deliver quite different multiplier values, depending on underlying parameter values, and assumptions regarding monetary policy reaction functions. As a consequence, one can only address the magnitude of multipliers by empirics.

(Chinn 2012)

However, empirical estimates of the multiplier did not deliver the answer either. According to a recent summing up:

The range of the spending multiplier estimated using these various approaches is from 0.4 to 1.5, with some estimates even lower than 0.4 and

some estimates larger than 1.5. However, most fall in the 0.4 to 1.5 range. This is a huge range because it includes 1.0.

(Alesina 2012: 431)

So the question remains unanswered, and the solution is hardly likely to come from exploiting econometric skills and ingenuity.

4. Triggers of the Mood Change towards the Multiplier

In fact it was the 2007–8 financial meltdown which triggered the mood change in the attitude towards Keynesian thinking; in academia and international economic institutions advocacy of a coordinated international intervention began to be voiced and heard.

Fiscal stimulus to keep the economy clear of the path to recession was back on the agenda. Action followed. China was in fact one of the first nations to launch a substantial fiscal stimulus package in March 2009 and similar, but more timid, actions were undertaken in the US and, to a lesser extent, Europe.

However, as Robert Hall noticed: “Notwithstanding the highly publicized attempts of the Obama administration, government purchases sagged below their established growth path following the financial crisis in 2008. The same principle applies, on the average, among all the advanced economies of the OECD” (Hall 2013: 102) Mainstream economists strongly disagreed on the measures taken.

Robert Barro (2009) repeated that the multiplier affect was close to zero and that the extra employment generated by the stimulus was going to crowd out private investment; J. Sachs (2010) was certain that the stimulus may work in the short term, but it was likely to cause more troubles in the future. A manifesto sponsored by the Cato Institute was signed by 237 American economists (the most renowned among them being Michael Bordo, James Buchanan, John Cochrane, Eugene Fama, Steve Horwitz, Dreide McCloskey, Alan Meltzer, Edward Prescott, Robert Whaples and Larry White) who refused to endorse the statement made by President Obama on January 2009 that “we need action by our government, a recovery plan that will help to jumpstart the economy”.²

These are just a few examples of the climate of opinion represented by academic economists, which remained in the main anti-Keynesian in the earlier stages of the crisis. In fact, the Keynesian resurgence in the aftermath of the 2007–8 crisis proved to be a phenomenon of politics and the media rather than academia.

² See Marcuzzo (2013: 4).

The rhetoric calling for immediate fiscal tightening (especially in Europe but also in the US) gained momentum in 2010 (with the impending risk of sovereign debt defaults in several European countries) and hung around until early 2012. Among the economists in prestigious institutions, only Paul Krugman and Joseph Stiglitz in the US were vociferous opponents to the austerity wisdom, joined by a few other mostly heterodox economists in Europe. The twists and turns of the “Return to Keynes” path, was ably described by Mario Seccareccia (2011: 3–4):

For a short period during 2009 and 2010, there was a “Keynes moment” when all governments internationally implemented fiscal stimulus packages largely on the basis of Keynesian demand-side ideas regarding the merits of running budget deficits in times of recession. These ideas defended by policy makers tended to be in strong conflict with the views of most academic economists who had been trained for decades to believe that budget deficits are destabilizing because they would ultimately lead to higher interest rates accompanying higher rates of inflation. Since early 2010, this new policy framework seems slowly to have been abandoned. On the one side, there has been significant pressure coming from conservative politicians who are alarmed at the large size of the public sector deficits because of fears of non sustainability of the public finances. At the same time, there has been pressure from mainstream neoclassical economists who fear that long-term deficits would be destabilizing for the economy, because ultimately, it is argued, governments face an intertemporal budget constraint, whereby current fiscal expansion must be followed ineluctably by future fiscal contraction. Although this view has been severely criticized by heterodox economists, policy makers seem to have reverted back to the pre-2008 policy position on the need for an “exit strategy” and a return to balanced budgets.

Signs that the pendulum was swinging back in favour of an expansionary fiscal policy, with the tide bringing the multiplier ashore, became noticeable early in 2012. De Long and Summers (2012: 233) made a timid overture:

In a depressed economy, with short-term nominal interest rates at their zero lower bound, ample cyclical unemployment, and excess capacity, increased government purchases would be neither off set by the monetary authority raising interest rates nor neutralized by supply-side bottlenecks [...] Thus, at the zero bound, where the central bank cannot or will not but in any event does not perform its full role in stabilization policy, fiscal policy has the stabilization policy mission that others have convincingly argued it lacks in normal times.

Giancarlo Corsetti et al. (2012: 521, 528) put it in even stronger terms, asserting that “Output and consumption multipliers [...] become quite sizeable during times of financial crisis”, thereby providing “evidence in support of fiscal stimulus during financial crises”.

Eventually both the IMF and the European Union in October 2012 followed suit:

our results indicate that multipliers have actually been in the 0.9 to 1.7 range since the Great Recession. This finding is consistent with research suggesting that in today’s environment of substantial economic slack, monetary policy constrained by the zero lower bound, and synchronized fiscal adjustment across numerous economies, multipliers may be well above 1 [...]. More work on how fiscal multipliers depend on time and economic conditions is warranted.

(IMF 2012: 43)

The Report on Public Finances in EMU stressed that:

There is a growing understanding that fiscal multipliers are nonlinear and become larger in crisis periods due to uncertainty about aggregate demand and credit conditions, the presence of slack in the economy, the larger share of consumers that are liquidity constrained, and to the more accommodative stance of monetary policy. Given these findings, it is reasonable to suspect that in the present juncture the multipliers for composition-balanced permanent consolidations are higher than normal.

(European Commission 2012: 5)

So if “empirically, estimated multipliers also depend on the methodology used to derive responses of economic activity to fiscal shocks” (Ibid.: 123) and results are not conclusive as “even differences in the sign of multipliers are observed”, (Ibid.: 126) it would be desirable for the discussion to be carried on to another level, involving examination of the competing theories rather than empirical findings. In fact, the discouraging discovery made in a recent scholarly review of the multiplier theory is that “Despite the increase in the number of estimates, there is still no consensus on the mechanism by which government spending raises GDP” (Ramey 2011: 683).

5. The Impact of the Crisis

The main indicators of the crisis in the advanced economies measured with the rate of unemployment and the growth of real GDP, had brought the focus on the “facts” for explanation of which the multiplier once again appeared a useful tool.

The IMF study (2012) showed that the actual value of the multiplier is twice or even three times that assumed in the growth estimates, namely in the range of 0.9 to 1.7 rather than 0.5. The recession had brought back values of the multiplier close to 1, from the average value of 0.5 for the advanced economies during the three decades leading up to 2009.

The reasons why the multiplier is well above 1 today are given as “monetary policy constrained by the zero lower bound and synchronized fiscal adjustment across numerous economies” (Ibid.: 43). The first reason is just a repetition of the “old” argument that private investment is not “crowded out” at zero lower bound interest rate. The second argument is that synchronized fiscal contractions of the same extent do not impact on current accounts and therefore prevent real depreciation and current account improvement from occurring. Both the arguments explain the multiplier effect of fiscal consolidation on output, taking into account the secondary effects (no crowding out and no trade expansion).

Others have argued “that standard macroeconomic theory implies that private-sector spending is determined by the expected future path of short-term interest rates and not just the current level of the overnight rate”, which is the only rate currently close to zero (Swanson and Williams 2012: 2). By stressing the role of expectations, news and credibility, the value of the multiplier can be made to stay below 1, also with zero bound interest rate. In fact, in modern macroeconomics the essential element is information, not needs, habits or distribution, which are the Keynesian forces behind the multiplier.

On the other hand, it is argued that in the abnormal financial conditions of the crisis, credit constraints were more binding; so “households could be expected to behave in a more ‘Keynesian’ fashion, with less reference to ‘permanent income’. This would tend to result in a larger multiplier” (Chinn 2012: 12).

In contrast, Shapiro (2012: 110) makes a different analysis of the pattern of consumption in a financial constrained and debt-ridden economy:

Debt-financed consumer spending is quite different from income-financed spending. The latter can continue as long as income is earned, whereas the debt financed spending cannot. Consumers have to pay interest on the debt they contract, and this interest can be paid in only one of two ways: out of their incomes or through incurring more debt. In either case, the interest payments on the debt will reduce purchasing power, and though the recipients of this interest may spend some of it on consumption, they are likely to be financial firms and wealthier households, neither of which spends much of their earnings.

Most of the interest paid out of household income will go back into finance, used for the purposes of financial investments or speculations, so that while consumer credit can increase consumer spending in the short run, raising it above the level of household incomes, it cannot do so in the long run. Its long-run effects are [...] the same as an increase in household saving: they reduce effective demand, worsening rather than ameliorating the employment problems of capitalist economies.

The conclusion could then be that in these circumstances expansionary fiscal policy becomes effective: when economic agents are “finance-constrained”, unable to borrow as much as they would like in order to spend, their propensity to spend any additional income they may receive is high.

It seems to me that two different issues are at stake. The first is whether the multiplier properly defined, taking into consideration, with their appropriate signs, c (propensity to consume), t (marginal tax) and m (propensity to import), was lower before 2009 than afterwards. The second issue is whether we have to look at the factors affecting the autonomous component – I , X or G – to account for different output responses.

The literature is not in agreement on several of these points. The symmetric working of fiscal spending multipliers in business cycle upturns and downturns is questioned as being determined by the employment of linear estimation techniques for time series data which tend to underestimate fiscal spending (Pusch 2012); another unsettled issue is whether inequality of income distribution can be regarded as a major factor accounting for aggregate consumption and saving (García-Lizana and Pérez-Moreno 2012).

This state of affairs is behind the rather discouraged response by a renowned mainstream economist:

It is very difficult to isolate the effects of fiscal policy. Therefore, the problem is inherently difficult. As economists, we should be more ready than we actually are in admitting that there are a lot of things that we do not know and be careful not to claim more than we actually know.

(Alesina 2012: 430)

6. Conclusions

Keynes dedicated three chapters (8, 9, 10) of the *General Theory* to the propensity to consume and to the multiplier. He listed the objective and the subjective factors underlying motives to spending, but concluded that expenditure in consumption “depends in the main [...] on the volume of output and employment” (CWK 7: 96). He always insisted that

consumption and saving were not to be treated in the aggregate as in the case of the individual case. The paradox of saving is the best-known example of the fallacy of composition which occurs whenever the aggregate is thought to have same outcome as that deriving from individual behaviour, but the same holds true for consumption.

In commenting on Ohlin's article in 1937, Keynes (CWK 14: 188–89) wrote:

prospective income as well as current income is relevant, but I have dealt with that, as I think one must in any formal treatment, in the function itself and not in the variable. That is to say, expectations of future income affect the propensity to spend out of current income [...] this may be important to particular individuals, but [is] not likely to be important for the community as a whole.

The basic thrust of the multiplier analysis is the induced effect on expenditure following an autonomous increase either of I , G or X as a consequence of variation in real income in the presence of unemployment of resources. The aggregate marginal propensity to consume out of a *given* income is assumed to be decreasing and stable, thus providing the parameter for the calculation of the multiplier. Once taxation and imports are taken into account the value is certainly lower, but the relation with real income remains the key determinant.

In the years of domination of the micro-foundations of macroeconomics, this basic Keynesian lesson was forgotten. Consumption was modelled on individual maximizing behaviour, over an infinite time horizon and with perfect foresight, relegating real income as determinant of consumption to a negligible role. What has been lost and hopefully may be regained is the idea of the centrality of changes (with both positive and negative signs) in aggregate current income and its distribution in fuelling or dampening economic growth.

The story of alternate acceptance and rejection of the multiplier reasoning is another example of the nature of economics, where ideology mixed with academic training forge the path along which concepts are formed, theories are tested and the ground where disputes are won and lost. This recession sees the same plot acted out, but hopefully with a happier ending. Philip Mirowski's neat taxonomy is helpful here:

we might divide the reactions of the economics profession to the crisis into three broad categories: one, *the orthodoxy was right all along* and nothing that has transpired in recent events impugns the fundamental soundness of basic theory; two, the orthodox have made some unfortunate conceptual choices in the recent past, but the crisis has sobered us up, and *we are*

working hard to rectify them, while maintaining fealty to all that was legitimate, timeless and dependable in neoclassical economics; and three, the best response would be to renounce neoclassical economics altogether, *and start anew with some other tradition of economic thought*.

(Mirowski 2013: 240)

The reader will by now have guessed to which category the present author belongs, in good company with Pascal Bridel, to whom this contribution is dedicated.

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PART IV

KEYNES AS SPECULATOR, INVESTOR AND REFORMER

CHAPTER TWELVE

SPECULATION IN COMMODITIES: KEYNES'S "PRACTICAL ACQUAINTANCE" WITH FUTURES MARKETS

LUCA FANTACCI, MARIA CRISTINA
MARCUSO AND ELEONORA SANFILIPPO

The specialist in the manufacture of models will not be successful unless he is constantly correcting his judgment by intimate and messy acquaintance with the facts to which his model has to be applied.

(Keynes to Harrod, 16 July 1938, CWK XIV: 300)

1. Introduction

In this paper we address the subject of Keynes as a speculator. We look first at the primary sources of information, which, in the main, are in the form of unpublished letters and broker's statements, by no means easy to interpret. Secondly, we look at the theory Keynes sparingly presented in his writings, but which nevertheless is grounded on his first-hand knowledge of speculative behaviour. Thirdly, we examine the focus on speculation in commodities, which had great weight in Keynes's portfolio, and have chosen a particular commodity – wheat – for our investigation. The sources, and in particular the correspondence with Kahn in 1937–38 and Buckmaster & Moore's statements, are discussed in section 2, within the framework of Keynes's investment activity, as we know it from Volume XII of *The Collected Writings of John Maynard Keynes* (hereafter CWK). Rather than reconstructing Keynes's theory of speculation, we present those elements (and particularly the idea of a "normal backwardation") that we consider relevant to an understanding of his behaviour regarding, and his theory of, commodity futures markets (section 3). The scope of this paper is concerned with speculation in commodities, although some remarks may have more general implications.

Section 4 examines wheat as a commodity, chosen because it was the commodity most traded by Keynes in futures markets and in view of its importance in general. In section 5 we examine some of his dealings in wheat futures in the period June–October 1937, with the aim of shedding light on the underlying investment strategy.

2. Keynes's Investment Activity: What we know and what primary sources can tell us

Keynes started his investment activity in financial markets very early, at least around 1905, but already by 1914 he was operating in a more substantial way (Skidelsky 1983: 286–288; Mini 1994: 84; and 1995: 48). He traded on his own behalf and on behalf of other people and institutions. While in the earlier period his main dealings, apart some speculation in shares, were in foreign exchange markets (especially in the dollar, mark, franc, and lira), after 1920 he became increasingly involved in commodity markets. He dealt heavily in cotton but also in lead, tin, copper, rubber, wheat, and sugar through futures contracts (Harrod 1951: 295–99; CWK XII: 4–8). The employment of commodity futures characterized his financial investment until 1938 (CWK XII: 12, Table 4). His dealings in commodities ceased completely at the outbreak of the war, when British commodity markets were closed and transactions in foreign markets became difficult because of exchange controls. During his long career as an investor, Keynes was also interested in holding ordinary and preferred shares as well as securities in his portfolio (see data reported by Moggridge, CWK XII: 12–14).

His experience and competence in speculative markets revolutionized the investment policy of the many institutions he directed, or, in various capacities, participated in; for example, the AD Investment Trust, the PR Finance Company, the Independent Investment Company, and the Provincial Insurance Company (CWK XII: 30). An excellent example is the case of King's College, where Keynes was appointed Second Bursar in 1919, and First Bursar in 1924, a position he kept until his death. Under his influence, the Chest Fund was created in June 1920 and the college began to be involved in riskier activities, including investment in ordinary shares and commodity futures. The Chest was an investment fund not restricted to investing in trustee securities, as was the case for other large portfolio funds of King's. After Keynes's appointment as First Bursar, a more active investment policy was adopted and, as a consequence, in addition to conservative and hedged transactions, more speculative positions were assumed (CWK XII: 89).

Assessment of Keynes's capacity as an investor is contradictory in the literature. It is widely held that he was very able in his investment activity, and it is certain that he left a sizable fortune on his death.¹ Chua and Woodward (1983: 233–234), for example, point to his positive results in out-performing the market in various years during the period from 1920 to 1945. Others, such as Moggridge (CWK XII: 9), tend not to attribute Keynes with exceptional gifts as a financial investor and point out the congruence between his wealth and the performance of the markets. Yet others underline the substantial amount of privileged information to which he had access in the course of his professional life – not only when charged with official roles – and consider that an important factor in explaining his “beating the market” on many occasions (see, for example, Mini 1995: 49). It is not our purpose here to discuss Keynes's ability as an investor on the basis of the results he obtained. The period we examine is too short to serve for an assessment of his investment performance in general. Our aim, on the contrary, is to trace out some features of Keynes's *actual* behaviour as an investor, his attitude toward risk in the period considered, how his decisions were taken, and the relationship, if indeed there was any, between his theory of futures markets and his practice as a speculator. We provide a cross-analysis of some primary archival sources: the mostly unpublished letters exchanged between Keynes and Kahn in 1937–38; and the statements of Keynes's broker, Buckmaster & Moore, as well as the accounts of the Tilton Company, the company created by Keynes in 1926 for the management of part of his own wealth (CWK XII: 9), and through which Keynes specifically operated in commodity futures markets.

The entire correspondence between Keynes and Kahn spans from 1928 to 1946 and amounts to more than 600 letters.² Keynes's heart trouble in May 1937³ – especially during the second half of 1937 and the beginning

¹ On his death, he left about £450,000, including the value of pictures and books (Harrod 1951: 297–298). The Chest Fund was also a success story: its capital appreciation from the initial investment of £30,000 amounted to £380,000 by the time of Keynes's death (Harrod 1951: 388).

² The letters are included in the Keynes Papers and Kahn Papers kept at King's College Modern Archives, Cambridge. A description of the entire correspondence and a complete list of the archival references is provided by Marcuzzo (2005, also in chapter 6 of the present volume).

³ Keynes's health problems started at the end of summer 1936, and got progressively worse until his collapse in May 1937. On 18 June he was taken to Ruthin Castle, North Wales, a private sanatorium “for the treatment of illness and the maintenance of health” (Skidelsky 2000: 4), where he remained until 23 September. He then went to London, and on 30 September moved to Tilton

of 1938 – obliged him to delegate Kahn to deal with much of his normal work: this circumstance gave rise to an extraordinarily intense exchange between the two – resulting in almost 300 letters – mainly dealing with investment decisions in various activities, ranging from farming and real estate to securities, currencies, and commodities – which give us a glimpse of Keynes's actual practice during this time.

In the months immediately following Keynes's illness, he grew to rely on Kahn (who, since 1935, had been assisting Keynes in his capacity as First Bursar of King's College) for the management of his financial affairs. In particular, Kahn executed Keynes's instructions on all matters related to college finances and Keynes's own financial investment; he regularly provided prospects and figures regarding Keynes's and King's accounts, especially in relation to the Chest Fund (see, for example, the letter from Kahn to Keynes, 12 September 1937, in Keynes Papers, KC/5/6/104).⁴ He also helped Keynes in keeping up relations with the stockbrokers in London, such as Buckmaster & Moore and Laurence Keen & Gardner (see, for example, the letter from Keynes to Kahn, 25 June 1937, in Kahn Papers, RFK/13/57/167), and in the management of the college properties (estates and farms); Keynes appointed him director of the Tilton Company (letter from Keynes to Kahn, 2 July 1937, in Kahn Papers, RFK/13/57/173).

Examination of their entire exchange yields some additional information on Keynes's investment activity, the kinds of financial instruments he adopted, and how he used them. In particular, the letters provide information on the types, proportions, places, and characteristics of Keynes's investments in the period considered.⁵ He operated mainly on the London Stock Exchange and Wall Street, but also on those markets in which different commodities were traded. To give but a few examples of Keynes's intense investment activity in that period, he was involved in trading in shares (ordinary and preferred) of big companies such as Imperial Airways and General Motors, public utilities such as Electric

(Moggridge 1992: 608). All these circumstances, even with Kahn in place, meant Keynes, for some time, was unable to respond as quickly as he normally would to changing events. This had an impact on his investment activity of that period.

⁴ References to the Keynes Papers and to the Kahn Papers are given following the classification of their respective catalogues at King's College Modern Archives, Cambridge.

⁵ In addition to information concerning investments on his own account, this correspondence also offers some clues as to the operations on the account of King's College. It appears that Keynes gave the same orders on both accounts, but on a different scale: the dealings for the college were generally 30–50% smaller.

Powers & Light Common, and US investment trusts such as Atlas Corporation or Tri-Continental, as well as in gilded securities.⁶ He also invested in commodities, particularly agricultural, such as wheat and maize, which earned him some profit, and, on the other hand, lard and cotton oil, which accounted for his substantial losses in that period (see, for example, data contained in the letters from Kahn to Keynes, 21 April 1937 and 6 September 1938; see also CWK XII: 20–21). Keynes was also active in the mineral sector, trading in copper, tin, and lead. He held shares in gold and diamond American mining companies (such as Homestake, Western Reefs, and Selection Trust) but also in refining and mining companies for the production of paraffin oil (such as South African Torbanite and US Smelting). What clearly emerges from the dealings during that period, especially in 1938, is a net sale of British securities and a net purchase of American securities. At the same time, his activity in dollars on the foreign-exchange market was also appreciable.

The correspondence with Kahn provides a rich source of information on Keynes's investments at that time: the variety and complexity of his speculative activities emerge clearly, as well as Keynes's competence and experience, to an extent suggesting that these activities were conducted under the influence of his own theories on speculation. However, the letters are difficult to interpret because they are very often written in the form of scattered notes, concise memoranda, and "telegraphic" instructions: very often they consist of only portions of a larger amount of information, which probably was not shared entirely through correspondence, but also through oral communication. The task of analysing and understanding the letters at times is like trying to guess the whole story of a film but seeing only a few frames at a time.

The second type of archival source – the financial statements – helps to build a more continuous and coherent picture of Keynes's investments in general, and particularly in commodity markets. Beginning in April 1926, Keynes made his investments in commodities through the Tilton Company. One of the most significant speculative activities carried on by Keynes in his lifelong investment practice was trading in the wheat futures market. He began his dealings in this commodity in 1920 and abandoned them at the end of 1937. In June 1937, approximately one-third of his investment portfolio was represented by commodity futures, and one-third of these was in wheat.⁷

⁶ More general information and data on Keynes's securities investments are provided in tables 3–6 in CWK XII: 11–14.

⁷ Data are drawn from statements covering the investment positions of J.M. Keynes and Tilton C. on 7 June 7 1937 (Keynes Papers TC/5/2/154–157). Values

The positions in the various commodities and their relative “cover”, or “margin”, the book profits and losses on each position, and the realized profits on closed positions are recorded in weekly statements provided by Buckmaster & Moore for the years 1933 to 1946, and in fortnightly accounts of J.M. Keynes and Tilton Company Ltd. for the years 1926 to 1939 (in Keynes Papers, TC/4/3 and TC/5/2, respectively).⁸

In the analysis of Keynes’s behaviour as a speculator, however, not even these sources are complete, since they do not give information on the actual dealings nor on the reasons behind investment decisions (although these may sometimes be inferred from the letters). We have, therefore, chosen to combine the two types of sources and to concentrate on the period from June to October 1937, for which there is more information about speculation on commodity futures markets.

We have also chosen to focus our attention on one specific commodity – wheat – to reconstruct Keynes’s behaviour in this specific market, which accounted for a significant share of his own speculative position as a whole (CWK XII: 12– 16; Chua and Woodward 1983: 232). However, before analysing Keynes’s actual dealings, we review his theoretical account of commodity futures markets.

3. Keynes’s Theory of Commodity Futures: Assumptions and Implications

Commodity futures are contracts to sell a given commodity at a future date for the price agreed when the contract is stipulated. Such contracts are stipulated in specially organized markets. Specific features of commodity futures exchanges will be described in section 4, with particular reference to the case of wheat in the interwar period. Our purpose in this section is not to provide an account of the functioning of futures markets according to present-day textbooks, but to reconstruct Keynes’s own understanding of these markets, as it evolves throughout his theoretical writings. Keynes did not write an essay specifically devoted to the analysis of futures markets; he did, however, discuss various aspects of their operation in a number of articles, both for the press and for academic journals (Keynes

for various types of investments (and percentages over total investments) are: \$1,271,639 = £259,518 (36%) of US shares and stocks; £128,734 (18%) of UK securities; £101,485 (14%) of foreign exchange (future sales); £232,807 (32%) of commodities. Total forward purchases of wheat are valued at £80,704 (34% of commodity investments).

⁸ The latter record also Keynes’s holdings in US and UK securities and his positions on forward exchange markets.

1923; 1938). Moreover, he referred to these markets in several passages of his major works (Keynes 1930; 1936).

The first notes concerning commodity futures published by Keynes are in an article for the “Reconstruction Supplement” of *The Manchester Guardian Commercial*, in March 1923.⁹ Keynes begins by observing that for certain producers, particularly of food crops, the circulating capital, in the form of the commodity actually cultivated and stocked, is of very high value compared to the fixed capital required to produce it. This entails not only a demand for short-period loans, but also high risks associated with price change of the commodity over the same period, running from the beginning of the production to the final sale. While the demand for finance is met by banks, the demand for hedging against risk is satisfied through organized forward contract markets; i.e., futures markets.¹⁰

Keynes describes “forward contracts” as a form of insurance policy against price fluctuations. Here he followed what was probably the common understanding in contemporary literature (see, for example, Emery 1896: 113). By stipulating these contracts, producers fix in advance the price of a future sale, thereby freeing themselves from the risk of a price decrease. The counter-party to producers is provided by individuals who agree to accept that risk by entering into an obligation to purchase at a pre-fixed price. Keynes assumes that forward purchases are made mostly by professional speculators, who are generally less risk-averse than producers.

This raises the question of the motives that draw professional speculators into futures markets. One possible motive might be the prospect of gaining from price changes, by buying forward in anticipation of a price increase that would eventually allow them to resell at a profit on maturity of the forward contract. Such speculators would be able to earn profits only by anticipating price movements more accurately than other actors. Keynes explicitly rules this out as a possibility, since it appears to

⁹ The same supplement contains equally ground-breaking remarks on the functioning of futures markets in currencies.

¹⁰ Keynes uses both expressions interchangeably (see, for example, Keynes 1923: 260). Moreover, in the financial statements, commodity positions are indicated as “forward purchases/sales” (see, for example, Keynes Papers TC/5/2/157); however, since they are clearly covered by a margin (Keynes Papers TC/5/2/ 154) and they result from trading on organized markets for standard contracts, it is evident that they correspond to the current definition of “futures.” Throughout this paper, we refer only to the latter type of contracts, following Keynes’s practice of designating them as both “forward” or “futures” contracts. We have found no evidence of the fact that Keynes might have traded in commodities over the counter (i.e., “forward” in the current sense).

rest on the assumption that, on average, speculators can forecast the future better than producers, traders, and consumers.

This leaves the possibility that speculators enter into forward contracts, not in the expectation of price changes and, hence, of windfall profits, but rather to provide an insurance against unexpected price changes, in exchange for a pre-determined remuneration. In Keynes's words, "the speculator in the great organised 'futures' markets [...] is not so much a prophet (though it may be a belief in his own gifts of prophecy that tempts him into the business), as a *risk-bearer*" (Keynes 1923: 260, italics in the original).

This hypothesis does not require that buyers and sellers in forward contracts entertain different expectations over prices at the date of maturity. On the contrary, it assumes that, given common expectations, sellers are willing to settle at a forward price lower than the expected price: to swap the prospective, uncertain proceeds of their sales for a lower, but certain, amount. In this interpretation, forward contracts perform the function of insurance policies and futures markets appear as the place where producers seeking to hedge meet speculators willing to insure them. According to Keynes, the systematic remuneration of the speculator in commodity futures arises from the fact that "for the sake of certainty, the producer, not unnaturally, is prepared to accept a somewhat lower price in advance than what, on the balance of probability, he thinks the price is likely to be when the time comes" (Keynes 1923: 261).

This statement may be translated in the following equation,¹¹ where the risk premium (r) paid by the hedger to the speculator is measured by the difference between the expected price (EP) and the forward price (FP) for the same future date:

$$r = EP - FP \quad (1)$$

This equation, however, cannot calculate the risk premium, since price expectations are not observable. Keynes introduces, therefore, the assumption that the latter are distributed normally around the actual future spot prices:

My method of arriving at the former [the calculation of the risk premium] is to assume that market opinion of the future course of prices, as expressed in current quotations, is as likely to err in one direction as in the

¹¹ This formalization is not made by Keynes, but it is useful to highlight the assumptions upon which his reasoning rests. It adopts the symbols introduced by Blau (1944).

other, and [thus] the remuneration of risk-bearing is measured by the average excess of the spot price three or six months hence over the forward price today for three or six months delivery.

(Keynes 1923: 263)

In other words, Keynes assumes that expected prices at the date of stipulation of a forward contract are equal, on average, to spot prices at the date of maturity (*FSP*):

$$EP = FSP \quad (2)$$

On this basis it is possible, in turn, to redefine the risk premium in terms of (observable) spot prices, rather than (unobservable) expected prices:¹²

$$r = FSP - FP \quad (3)$$

From the interpretation of futures markets as a form of insurance, and, hence, from the existence of a positive and systematic risk premium paid by forward sellers to forward buyers, Keynes infers “that there is a ‘backwardation’ in the price of a commodity, or in other words that the forward price is below the spot price” (Keynes 1923: 262). We may thus define backwardation (*b*), as an excess of the current spot price (*SP*) over the forward price:

$$b = SP - FP \quad (4)$$

As Keynes suggests, backwardation is not necessarily an indication that the market takes a “bearish” view of the price prospects (Keynes 1923: 262). In other words, it is not necessary that there are expectations of declining prices ($EP < SP$), or that prices actually decline ($FSP < SP$), for there to be a backwardation. In fact, backwardation is correlated not only (negatively) to the price increase, but also (positively) to the risk premium, according to the following equation:

$$b = SP - FP = (FSP - FP) - (FSP - SP) = r - (FSP - SP) \quad (5)$$

Backwardation, therefore, is not, according to Keynes, a permanent feature of the futures markets, but rather a situation that comes about only if prices do not increase by more than the risk premium (see Figure 12.1):

¹² We are indebted to M. Dardi and P. Mehrling for help in presenting the distinction between backwardation and risk premium.

$$FSP - SP < r \quad (6)$$

The issue was developed, quite consistently with this interpretation, in the *Treatise on Money*. Here we find an even more explicit indication of the conditions that give rise to backwardation:

If supply and demand are balanced, the spot price must exceed the forward price by the amount the producer is ready to sacrifice in order to 'hedge' himself, i.e. to avoid the risk of price fluctuations during his production period. Thus in normal conditions the spot price exceeds the forward price, i.e. there is a backwardation.

(Keynes 1930: 128)

Contrary to prevailing interpretations, such as those reviewed below, Keynes used the expression "normal backwardation" to indicate, not a permanent feature of futures markets, but rather one that is present only "in normal conditions." And conditions are "normal" when supply and demand are balanced and, therefore, prices are relatively stable.

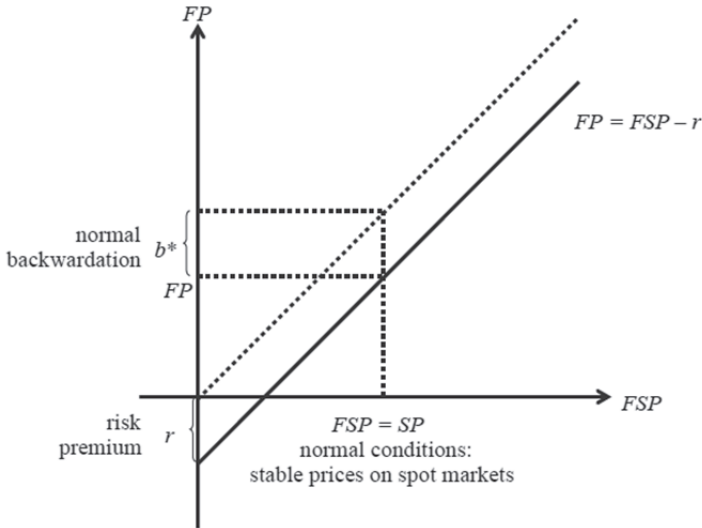
The need to qualify "normal backwardation" thus is confirmed by the way Keynes broadens his description of futures markets to include situations in which "normal conditions" are not present, and, hence, backwardation must be explicitly ruled out. In particular, Keynes looks to the case of most immediate practical relevance at the time: that of excess supply and redundant stocks.

In this case there cannot exist a backwardation; for if there was one, it would always pay to sell the stocks spot and buy them back forward rather than incur the warehousing and interest charges for carrying them during the intervening period. Indeed the existence of surplus stocks must cause the forward price to rise above the spot price, i.e. to establish, in the language of the market, a "contango"; and this contango must be equal to the cost of the warehouse, depreciation and interest charges of carrying the stocks.

(Keynes 1930: 129)

In other words, in a period of excess supply, the forward price will have to cover the carrying costs of the commodity and will, therefore, exceed the current spot price by a corresponding amount. However, as Keynes immediately specifies, this does not imply that the cost of hedging becomes zero (or even negative). On the contrary, the forward seller will continue to pay a risk premium: "the quoted forward price, though above the present spot price, must fall below the anticipated future spot price by at least the amount of the normal backwardation" (Keynes 1930: 129).

Figure 12.1. Backwardation on the forward market and price variations on the spot market



It is worth noting, incidentally, that this is the only passage in Keynes's works where he uses the expression "normal backwardation" – and with reference to a case in which, as he explicitly stated, backwardation cannot exist. On the contrary, the forward price will exceed the spot price by an amount corresponding to the carrying costs (c), thus resulting in a contango on the futures market:

$$FP = SP + c \quad (7)$$

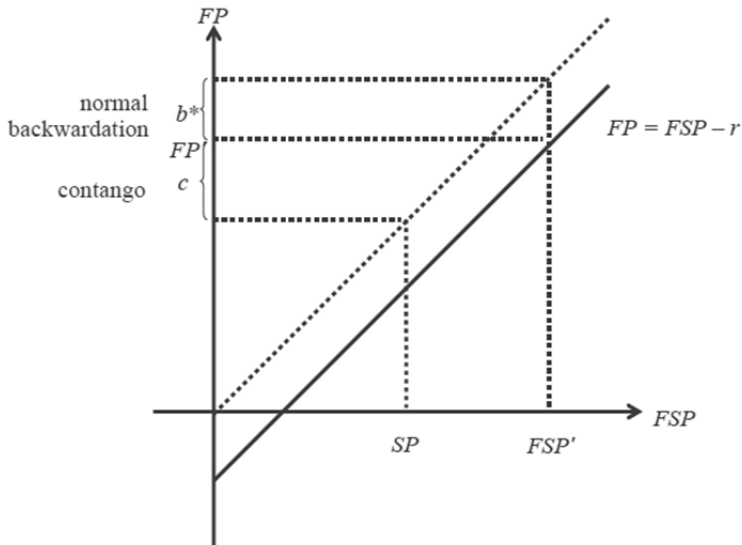
At the same time, the forward price will continue to fall short of the future spot price by an amount corresponding to the risk premium, and hence to the otherwise normal backwardation ($b^* = r$; see Figure 12.2):

$$FP = FSP - r = FSP - b^*$$

Even in this case, the speculator will reap systematic gains by selling the commodity previously purchased forward. However, there are two differences with respect to the normal case: 1) due to the imbalanced market and the price fluctuations, it will be more difficult to make predictions, and the speculator will be bearing a higher risk for the same

premium; and 2) due to the carrying costs, forward purchases will be more expensive than spot purchases, and will expose the speculator to a loss if spot prices fail to increase according to expectations. Although it may still be possible to earn a systematic positive income simply by bearing risk, the possibility that this may result in a loss due to unexpected price fluctuations is now both more likely and more costly.

Figure 12.2. Contango and normal backwardation



This generalization of the theory of the forward market has important practical implications for speculation strategies, since it implies that the speculator will gain only if he is well acquainted with market conditions as to supply, demand, and new production for the relevant commodity. It will not be sufficient for him to pursue a constant strategy of being systematically long, but he will have to engage actively in collecting market information and place his orders accordingly.

Actually, as will be shown in section 5, Keynes's activity as a speculator did not rely on the assumption that, by merely maintaining a long position, a systematic gain would be assured. He did not act upon the assumption that backwardation was "normal" in the sense of being permanent and unconditional. Before turning to a discussion of his

practice, we briefly review the empirical tests of Keynes's hypotheses carried out in a number of subsequent studies.

It has been noted that only in one instance did Keynes use the words "normal" and "backwardation" together, possibly not attaching much importance to it *as a theory* (Gray and Rutledge 1971). Yet the so-called theory of normal backwardation, usually called the Keynes–Hicks theory, has been incorporated in standard presentations of the theory of futures markets (see, for example, Leuthold et al. 1989: 108–111). The empirical relevance of this theory has been the object of many investigations into the existence of a risk premium in futures markets. It is not the purpose of the present paper to assess the extant literature, but rather to examine the main issues that have been addressed.

The first question is to clarify which is the relevant evidence to test Keynes's conclusion: since expected prices are unknown, normal backwardation is not directly observable and a measure of it must be found in order to test it indirectly.

One type of evidence is the positive excess return to long-only investors in commodity futures, who will reap the risk premium handed over by short hedgers. The theory predicts that long speculation is profitable whenever the expected spot price is greater than the futures price and "*vice versa* for when speculators are net short" (Radalj 2002: 566). The test conducted by Kolb (1992) showed that only *some* commodity futures have positive returns, and other studies led to the general conclusion that "proving the existence of normal backwardation for the average individual commodity futures is difficult" (Erb and Harvey 2006: 77).

There is also the difficulty that actual trading records of speculators are often unavailable: Stewart (1949) reviewed the accounts of approximately 9000 customers of a US broker firm (which then went bankrupt) between 1925 and 1932, held by nonprofessional traders in grain futures. He found that "nearly 75% of the speculators lost money and that in the entire sample total losses were about six times as large as total gains" (Houthakker 1957: 143). Houthakker questioned the reliability of Stewart's results and devised an alternative method of estimating profits, based on "monthly figures of open commitments and future prices" (*ibid.*) in cotton, wheat, and corn for the period 1937 to 1952. Total profits or losses were calculated by multiplying the position in a future by the change in the average price of that future. He showed that a risk premium was indeed produced, although it went to big speculators rather than small traders. He presented this result as confirmation of the "normal

backwardation” implication that, in the long run, there is a pay-off in maintaining a long position in commodity futures markets.

Another possibility to test Keynes’s theory is the trend in futures prices: if futures prices are downward-biased estimates of expected prices, then they should be seen to rise as the contracts approach maturity. The excess of the expected spot price over the future price decreases as the futures contract approaches maturity because the risk of unanticipated price changes decreases with time, and so does the risk premium hedgers are willing to pay to speculators. Assuming spot prices to remain constant, futures prices must, therefore, rise. The price increase, which is brought about by hedgers being long in the underlying commodity and short in the futures commodity, provides the inducement to the speculators to be long in commodity futures.

Proofs of the existence of normal backwardation have, then, been sought in testing two behavioural hypotheses: whether long speculators receive profits (and, conversely, short hedgers suffer losses); and whether there is an upward trend in futures prices towards maturity.

Telser (1958) tested the trend in the futures price of cotton and wheat during the period 1926 to 1954 by recording the sign of the month-to-month change in the futures price, and taking the first differences between the monthly averages. For the four wheat futures trading during the period (May, July, September, December), he rejected the hypothesis that there was an upward trend. Cootner (1960: 417) was critical of Telser’s results, pointing out statistical and conceptual errors, and concluding that “there is, in fact, a trend in wheat prices”. In so doing he agreed with Blau (1944), Kaldor (1939), and Houthakker (1955; 1957) – with some qualifications – in accepting Keynes’s backwardation theory, and disagreed with Telser (1958), Brennan (1958), and Gray (1961), who rejected it.

Kregel (2010) pointed out that backwardation as a proposition implies there is an excess supply of contracts to deliver the commodity in the future; i.e., there are more producers seeking to sell forward relative to those seeking to buy forward. The question, therefore, is whether there are reasons to believe that this is a “normal” market condition. According to this, the burden of proof points to the underlying economic forces leading to this occurrence, rather than to the statistical tests of the sign of futures prices or excess profits.

This is why we now consider the main dynamics of the wheat market in the interwar period, before turning to consider to what extent these were reflected in Keynes’s speculative activity on wheat futures.

4. Wheat: Spot and Futures Markets

Wheat was one of the most important world agricultural commodities in the interwar period, largely consumed by the Western countries and grown all over the world. After the First World War and the Great Depression, in particular, wheat production was crucial from a strategic (but also strictly economic) point of view. The difficulty in reaching a stable matching point between world production (highly changeable in relation to weather conditions and other unpredictable factors such as infestations and rusts) and world demand gave rise to huge fluctuations in world wheat prices, which made this market very unstable. During the period from 1926 to 1934, the world produced more wheat than it consumed. The surplus stocks accumulated were responsible for the world wheat crises of these years. Especially after 1928 – when an exceptionally abundant world crop was harvested – stocks grew considerably, bringing about a sharp fall in world wheat prices from 1929 until 1933–34. This exceptional accumulation of stocks, and the consequent spectacular fall in prices in 1930 to 1935, was due neither to an increase in production following a rise in the average yields, nor to a reduction in world consumption. The main factor seems to have been an extension of world acreage and a general tendency in many countries to a policy of self-sufficiency. After the First World War, in which many countries experienced serious difficulties in obtaining adequate supplies of wheat, governments tended to support domestic production in order to reduce dependence on the foreign market. At that time, the main importing countries were Western Europe (France, Germany, and especially Great Britain), and the main exporting countries were the US, Canada, Argentina, and Australia. From the beginning of the 1930s the USSR, one of the leading producers, drastically reduced its exports and, in general, its presence on the international market. In summer 1935 – due to exceptionally unfavourable weather conditions and infestations, which brought about poor crops throughout the world – the carry-overs started to diminish and this tendency lasted through 1936 and 1937, favouring a recovery in wheat prices. But when the unfavourable weather conditions came to an end, in 1938, a new world wheat crisis broke out and lasted until the outbreak of the Second World War (Hevesy 1940: 1–14).

Keynes addressed the problems of the wheat market in a note (1939) for the Wheat Advisory Committee. According to him, there were two fundamental reasons for the difficulty in matching demand and supply on wheat markets and, hence, to maintain prices stable at a level compatible with the welfare of consumers and producers: 1) the systematic excess of

supply relative to demand; and 2) the wide fluctuations in supply. According to Keynes, the former derived from the subsidies and tariffs implemented by governments to support domestic wheat prices and to counteract the fall in the purchasing power of producers and farmers, and from the stimulus to increase production coming from occasional years of high prices (as was the case in 1936 and 1937). The latter could be greatly mitigated, in his view, by government control of wheat storage, which could be exploited as a system for stabilizing prices (Keynes 1939: 505–508).¹³

Great Britain was, by far, the most important import country for wheat: no tariff existed on imported wheat, there was little domestic production, and wheat was imported from all over the world. Liverpool was the leading wheat market in Britain, and Liverpool prices could be considered “as fairly representative of world wheat prices” (Timoshenko 1928: 22). The major factors influencing Liverpool wheat prices were the world production, the distribution of this production in surplus and deficit areas, and carry-overs (stocks from previous years) in exporting and importing countries (*ibid.*: 3).¹⁴

World wheat production was divided into two areas: 1) northern hemisphere production: North America (the US and Canada), eastern Europe (surplus area), western Europe (deficit area), and India; and 2) southern hemisphere production: Argentina, Australia.

These two productions were harvested at different times and influenced the price in different ways. The April and May wheat prices in Liverpool were much influenced by the crops of the southern hemisphere, which were harvested in the previous December and January, and possibly the British India crop, which was harvested in March and April, while they were not influenced by expectations regarding future crops of the northern hemisphere, because it was too early for accurate forecasts in this respect. On the other hand, the changes in Liverpool prices between April and May, and September and October, were mainly due to crop conditions in the northern hemisphere (*ibid.*: 26). Another fundamental element in determining the Liverpool price was the carry-over of wheat from previous seasons: the larger the carry-overs, the lower the Liverpool price (*ibid.*: 39–40).

An important characteristic of this market was the huge amount of information at the traders’ disposal, which is not surprising, given the

¹³ Keynes’s proposals for the establishment of international buffer stock schemes are analysed in Fantacci et al. (2012).

¹⁴ The distinctive features of Liverpool grain trade are described by Forrester (1931).

enormous strategic relevance of this commodity for many countries in the world at the time. All statistics and data related to the volumes of production by country, the net imports, the carry-overs, the shipments throughout the world, the different qualities of wheat, even the weather and soil conditions in different areas, as well as reports containing prospects, analyses, and forecasts, were regularly published by many institutions (such as, for example, the US Department of Agriculture, the Food Research Institute of Stanford University, the International Institute of Agriculture in Rome, the Wheat Advisory Committee in London, the Chicago Board of Trade, the Canadian Wheat Board, and the Winnipeg Grain Exchange), and, of course, by specialized journals (for example, the *Corn Trade News*, the *Wheat Studies* by Stanford University) or by banks (such as the Federal Reserve Bulletin). Keynes himself contributed to collecting and systematizing information on wheat and other commodities with the memoranda on “Stocks of Staples Commodities” (1923–30), prepared for the London and Cambridge Economic Service (CWK XII: 267–571). As far as information is concerned, this market was near to being a “perfect” one in the sense that everyone involved in trading – farmers, merchants, owners of grain elevators, speculators, and even consumers – could have access to the information they needed to make their decisions.

The characteristics of this market made it particularly suited to the development of futures contracts. If the progress in distribution and storage of wheat, together with the accessibility of information, made the organization of efficient futures markets viable, the high volatility of wheat prices made it greatly desirable.

To facilitate the matching of hedgers and speculators, negotiations for futures contracts were highly centralized and standardized (Santos 2006: 4). The standardization applied, first of all, to the quantities and qualities of commodities and the maturity dates. The commodity involved was graded according to a standardized system (for example, for American wheat: Spring, White Winter, Red Winter) and was traded in even lots (in the US, for example, in lots of 1000 bushels, 5000 bushels, or multiples). Even the dates of delivery were concentrated in certain months, with maturity ranging within eleven months from the stipulation of the contract (see Table 12.1).

The seller was given the option to decide the actual day and grade of delivery, and was free to tender the wheat on any day between the first and the last day of the month of maturity of the futures contract. This is why, holding forward purchases of July wheat on the Liverpool market and wishing to close his position before actual delivery, Keynes began to be

concerned about deliveries from the very beginning of the month of maturity: “I wonder what has happened today to the July tenders!” (Keynes to Kahn, 1 July 1937, in Kahn Papers, RFK/13/57/171–2). The seller could also decide the grade of the wheat delivered. The prices set in future contracts referred to a standard basic grade. If the wheat actually delivered was of a better (or poorer) grade, the settlement price would be equal to the contract price plus a premium (or minus a discount) (Hoffman 1932: 101–103).

Table 12.1. Months of standard maturities for futures contracts on major markets

	1	2	3	4	5	6	7	8	9	10	11	12
Liverpool			X				X			X		X
London*								X			X	
Chicago					X		X		X			X
Winnipeg										X		X

* The maturities for London refer to futures on Manitoba wheat.

Hedgers and speculators operated on the market through licensed brokers. Brokerage firms were endowed with brokerage offices, private telegraph and telephone wires connecting them to the exchanges, and brokers on the trading floor. Brokerage firms also played a crucial role in collecting all sorts of information concerning the production and marketing of wheat and the conditions of markets worldwide. The sources of their information were official and unofficial reports, trade journals, ticker news, and forecasting services. The information collected by the brokers was then made available to their customers.

Brokers could receive orders of various types from their customers.

- “At-the-market orders” were orders to buy or sell at the price currently prevailing on the market. This type of order was to be executed by the broker as soon as possible.
- “Limit orders” were orders to buy or sell at a specified price. In this case, the broker’s obligation was to attempt to buy or sell as soon as the price was reached in the course of negotiations on the market. The directions given by Keynes to Kahn were primarily to place this sort of order; for example, on 30 June 1937: “Could you put on a limit to sell another 1 load July at 9/10 and 1 load at 9/11 ½” (Kahn Papers, RFK/13/57/169–70).
- “Stop-loss orders” were a hybrid of the previous two. They may be described as limit orders that immediately became at-the-market

orders as soon as the price limit was reached. In periods of wide fluctuation, the price contracted could be far different from the limit set by the customer.

- “Spreading orders” consisted of two simultaneous orders of buying on one market for a certain maturity and selling on another market (and possibly at another maturity). This type of order was placed in the expectation of profiting from a misalignment of prices between markets (and maturities), with respect to the parity (i.e., the normal price differential to be expected on the basis of transport costs, carrying costs, market conditions, etc.). Keynes and Kahn also often resorted to this type of order for the purpose of operating a “straddle,” an arbitrage between two markets. In the same letter of 30 June, Keynes wrote: “He [Case] still favours the Winnipeg–Chicago straddle; so perhaps we might raise our limit for closing it to 20 pts gain.”

Customers were required by their brokers to advance an amount of money in proportion to the order made: this was called the “margin,” or “cover.” The exact amount of margin requested was fixed by the broker. Buckmaster & Moore debited Keynes’s account for a cover on forward wheat purchases equal to 25% of their current valuation (as found in the statements in Keynes Papers, TC/5/2).

Most future contracts did not eventually give rise to actual delivery of the commodity, but to compensation between short and long positions on equal amounts of wheat bought and sold forward at different prices. In the case of compensation, what was paid was only the price difference. Compensations were performed on each maturity and on each market through the clearing system provided by the exchange. If the position of a trader was not closed by an opposite operation within the date of maturity, then settlement was required through the actual purchase or sale of wheat. In fact, actual deliveries normally represented only a very small percentage of futures trading. This makes it all the more surprising to learn that in 1936, Keynes, having purchased forward “about one month’s supply of wheat for the whole country,” informed his broker, Ian Macpherson, “that he had measured up King’s College Chapel during the weekend and could take half of the wheat” (CWK XII: 10).

5. Keynes’s Wheat Investments, 1937–38: Evidence and Interpretation

The main markets in which Keynes operated were Liverpool, London, Chicago, and Winnipeg. These markets presented different characteristics,

not only in terms of geographical location. Chicago and Winnipeg were close to large wheat-producing and -exporting areas. Hence, futures contracts on these markets, although specified in terms of generic contract wheat, were related to the specific qualities of the wheat produced in North America (in particular, Hard Winter and Spring wheat in Chicago, and Manitoba wheat in Winnipeg). Moreover, both these markets were endowed with a well-developed storage system (Santos 2006). As a consequence, carry-over costs had a major role in determining the difference between spot and futures prices on these markets.

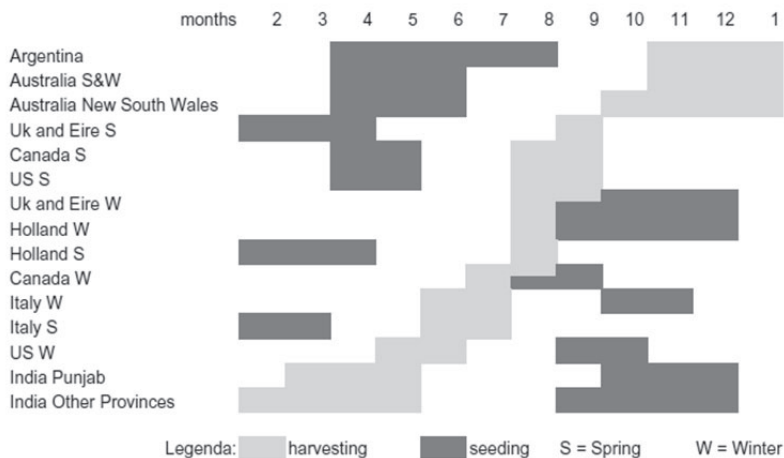
On the other hand, Liverpool and London were the chief ports of arrival for wheat imported from all over the world and bound not only for British but also for Continental markets. These two markets were not equipped with capacious storage facilities, but relied on arrivals from various producers all year round (Working 1942). The difference between spot and futures prices in these two markets was influenced more by the succession of arrivals, and, hence, by the conditions of production, than by the carrying costs of stocks. The continuity of arrivals was guaranteed by the succession of harvests from the southern to the northern hemispheres along the year, starting from Australia in October to the UK in the following September (see Figure 12.3). Each market dealt in futures of various maturities, broadly corresponding to the timing of harvest and delivery to the market of tenderable wheat.

The correspondence between Keynes and Kahn also indicates the sources of information they used. The most important was George Broomhall's *Corn Trade News*, a specialized journal providing statistics, reports, and forecasts not only on production, shipment, and prices of wheat, but also on futures trading (mentioned in the letter from Keynes to Kahn, 24 August 1937, in Kahn Papers, RFK/13/57/223–24). The second important source of information, particularly for the North American markets, was provided by official reports published by leading American and Canadian institutions.¹⁵ The third source was information and

¹⁵ It is not easy to establish to which source Keynes refers in each individual case. In the case of the "American reports," it could be *The Wheat Situation*, issued periodically by the US Department of Agriculture, or the *Wheat Studies* published by the Food Research Institute at Stanford University; in the case of the "Canadian report," it could be *The Monthly Review of the Wheat Situation* by the Agricultural Branch of Canada's Bureau of Statistics (letter from Keynes to Kahn, 11 July 1937, in Kahn Papers, RFK/13/57/182–4).

suggestions from an American correspondent of Keynes, the banker Walter Case (see the letters from the end of June to August 1937).¹⁶

Figure 12.3. Seeding and harvesting calendar



Source: *Corn Trade News* (1938), Jubilee Issue: 79–81.

The most striking characteristic of Keynes's speculative activity in wheat futures is the systematic prevalence of long positions over the period from 1935 to 1937. In fact, the accounts record forward purchases on most markets and for most maturities, with only occasionally short sales, and only on one market (Chicago). To maintain a long position means to purchase a certain quantity of wheat for a certain maturity and, as the maturity approaches, to put it forward to a later date. It is useful to consider the evolution of Keynes's positions on one representative market, the Liverpool wheat futures exchange, which is particularly significant, not only globally, as we have seen, but also in Keynes's portfolio.

At the start of our observation period, on 4 June 1937, Keynes, as a result of previous dealings, was engaged in forward purchases for eleven loads (corresponding to 52,800 centals) of July Liverpool wheat, at an

¹⁶ Walter Case (1885–1937) was an American investment banker. In 1916 he founded Case, Pomeroy & Co, a private investment company based in New York, with the emphasis on specialized research (Moggridge 1992: 868). Beginning in 1930, Keynes sent Case reports and notes containing his views on the economic and financial situation, and, in particular, on commodity price movements (see the correspondence between Keynes and Case in Keynes Papers, BM/2).

average price of 8s 8.5313d per cental, implying a total cost of £22,997. The current price of July Liverpool wheat on June 4 was 8s 11.625d. per cental, implying a total value of £23,677. Therefore, Keynes's long position on July Liverpool wheat gave rise to a book profit of £680 on the date of June 4.

As the maturity date approached, Keynes had two options: either to close his position by selling July Liverpool and thus realizing the corresponding profits (or losses), or to put forward the long position; that is, to switch from the imminent maturity to a later date by selling July Liverpool and at the same time purchasing Liverpool wheat for a later maturity. In this specific case, Keynes decided to sell one load of July Liverpool on June 11, realizing a profit of £66. Another three loads were sold on June 25 for a profit of £638. This left Keynes with an open position of seven loads of July Liverpool at only a week from the beginning of the month of maturity. There was time until the end of the month of maturity to close the position, without having to take actual delivery. Between July 9 and July 16, Keynes sold another five loads, thus reducing his position on July Liverpool to three loads and realizing a further profit of £1320. This time, however, Keynes was not simply closing his position, but, rather, shifting it to further dates. In fact, in the same week, he made forward purchases for an equivalent amount, buying three loads of October Liverpool and two loads of December Liverpool. The connection between the sale of July Liverpool and the purchase of later maturities is proved by two letters, of 6 and 13 July, in which he instructed Kahn to "put forward" three July Liverpool to October and two to December (letter of 13 July, in Kahn Papers, RFK/13/57/191-2; letter of 6 July, in Kahn Papers, RFK/13/57/176). The orders could take some days to be executed, according to the conditions of the market and to the type of order given. We have tabulated Keynes's positions in Figure 12.4.

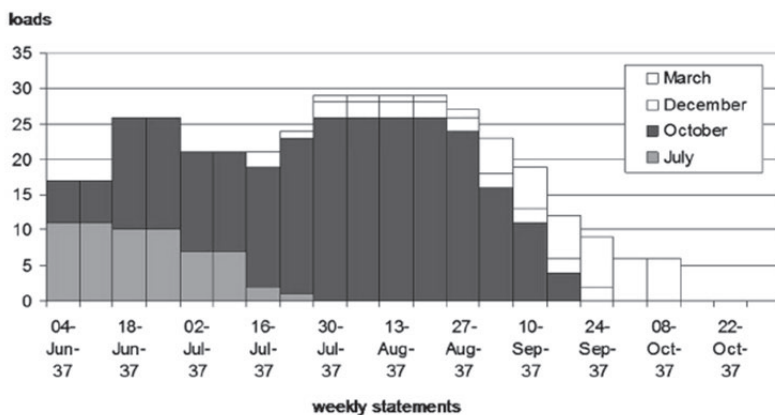
This strategy is consistent with the idea of speculation as a form of insurance that earns a gain from backwardation, corresponding to the difference between spot and futures prices, by maintaining a long position over extended periods.

However, this does not mean that such a gain is automatic and is guaranteed by the strategy of repeating indefinitely the same operations, regardless of market conditions. In Keynes's words in his letter to Kahn: "it is a business which [...] does not turn out right over a period of years unless one attends to the details, which cumulatively add up to quite a lot" (letter of 14 July, in Kahn Papers, RFK/13/57/193-4). In fact, Keynes paid constant attention to the details of market conditions in order to judge

exactly the best course of action. Indeed, it appears that Keynes carried out alternatively three different types of speculation:

- (1) long commodity futures, aimed at earning the normal risk premium;
- (2) time-varying long commodity futures, so as to have larger exposures when the premium is large relative to the risk, and smaller exposures when the premium is small relative to risk. (This strategy might also involve closing a position on one specific market and/or commodity if the risk premium was too low compared to other investments, as Keynes eventually did for wheat in October 1937);
- (3) outright speculation on future prices or price differentials, when one thinks the market is making a mistake. (This strategy would suggest assuming a short position rather than a long one, or hedging a long with a short position on a different market; i.e., to make a straddle).¹⁷

Figure 12.4. Tilton Company forward purchases of Liverpool wheat futures for various maturities (loads)



Note: 1 load = 4800 centals; 1 cental = 100 pounds.

Source: Keynes Papers, TC/4/3.

¹⁷ A straddle is the combination of two opposite positions on two different markets (and possibly two different dates) with a view to closing the positions simultaneously, speculating on the price differential.

If, at the beginning of 1937, the accounts of Tilton Company show only long positions, by mid-1937 the sources start to provide evidence also of outright speculation. On 18 June there was a short sale of 40,000 bushels of September Chicago, for a book profit of £35. On 25 June the accounts register a further short sale of September Chicago, for a total short position of 60,000 bushels and a book profit of £205. After another week, the price of September Chicago had increased from c108.5 to c125.5, causing a reversal in Keynes's results, amounting to a book loss of £1835. At the same date, a forward purchase of 15,000 bushels of October Winnipeg is recorded in the accounts. This operation might appear completely independent of the short position on Chicago, but we learn from the letters that this forward purchase was intended as the second leg of a straddle between Chicago and Winnipeg. This represents the third type of operation conducted by Keynes in wheat futures.

One reason for a speculator to engage in a straddle may be the lower volatility in price differentials between two markets as compared with the volatility of prices on either market (Houthakker 1957: 148). This hypothesis seems to be confirmed here. Keynes had assumed a short position on Chicago in the expectation of a decline in prices. In fact, he was now suffering losses due to a sharp and unexpected price increase. At this point, following a suggestion by Walter Case, Keynes made a forward purchase on Winnipeg in the hope that, even if the Chicago prices continued to rise, they would remain below the Winnipeg prices. This expectation did not require foresight regarding the yield of the US crop in absolute terms, but only in relation to the Canadian crop. Accordingly, in his letter Keynes grounds the rationale for the Chicago–Winnipeg straddle in his different expectations concerning the two harvests: “I feel quite happy to be short of Chicago [and long of Winnipeg] – for USA will surely have a fair crop; whilst Canada cannot anyhow have a decent one.” Keynes expects that different volumes of supply will result in different prices on the two markets. This expectation implies that the two markets were not integrated and this, in turn, may have depended on three factors. The first concerns the quality of wheat, which was not the same on the two markets: since Canadian wheat (Manitoba) was much better than US wheat, “they are not perfect substitutes so that Manitoba will command a premium if it is in relatively short supply.” The second consideration has to do with the timing of harvests, first in the US and subsequently in Canada (letter of 1 July 1937, in Kahn Papers, RFK/13/57/171–2). The third factor has to do with the institutional features of grain markets and public wheat policies in Canada and the US (Santos 2006: 18–19).

Keynes's behaviour as a speculator in wheat futures in the second half of 1937 seems consistent with the hypothesis suggested by a reading of his theoretical writings: backwardation may be regarded as "normal" only under certain conditions. Keynes did, in fact, operate according to the idea that gains could be made in the long run by simply taking and keeping a long position. However, he knew that the normal, long-run outcomes occur only under certain conditions, and that the corresponding optimal behaviour pays only to the extent that those conditions hold. Therefore, his speculative position was not limited to purchasing forward and continuously shifting ahead the maturity on the futures contracts, but also included different types of operations such as short sales and straddles, as the case might have been, according to expectations regarding the movements of absolute and relative prices on different markets and over different time-spans.

6. Conclusion

Speculation in commodities was a "business" that required "hard work" – as Keynes wrote to Kahn on 14 July 1937 (in Kahn Papers, RFK/13/57/193–4) – and a thorough, constantly updated knowledge of the market conditions for each commodity traded. This comment also applies to any scholar wishing to study speculative activity behaviour in any particular commodity, to grasp fully what is peculiar to that particular commodity and market.

Our purpose with this paper was to make some contribution towards an understanding both of wheat futures in the 1930s and of Keynes's trading in them by examining original and unpublished sources, and presenting his scattered and often shorthand instructions in a more coherent and comprehensible form; this is just a preliminary inquiry since more "hard work" is needed to expand the scope and the time period under consideration.

As for the relation between Keynes's actual behaviour as speculator and his theory of speculation, we claim neither that his behaviour proved his theory, nor even that he followed his own theory in his speculative activities. We have seen that normal backwardation applies only to well-specified circumstances and, moreover, our sample is too narrow to make the test feasible. For the same reasons, we have not attempted to evaluate how successful Keynes was as a speculator in wheat futures; we have tried, rather, to provide a means to assay a material drawn from an ore that is rich and potentially rewarding for those willing to invest in it, but hitherto very costly to dig out. By providing a sample of it, we hope to

attract other scholars into the venture and thus to enlarge our knowledge of commodity futures in general and wheat futures in particular in the 1930s. This, in turn, will better equip us to interpret the evidence.

However, we can conclude that, within the extant literature, our investigation affords a clearer understanding of another trait of Keynes's multifaceted mind, and further substantiates his remark to Hawtrey: "I do speak on this matter, not merely as a theorist, but from an extremely wide practical acquaintance with commodity markets and their habits" (Keynes to Hawtrey, 6 January 1936, in CWK XIII: 627–628). Investigation into this "practical acquaintance" is the task we have undertaken here.

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CHAPTER THIRTEEN

SPECULATION AND BUFFER STOCKS: THE LEGACY OF KEYNES AND KAHN

LUCA FANTACCI, MARIA CRISTINA
MARCUSO, ANNALISA ROSSELLI
AND ELEONORA SANFILIPPO

to provide “a middle course between unfettered competition under *laissez-faire* conditions and planned controls which try to freeze commerce into a fixed mould”.

(J.M. Keynes, CWK XXVI: 111)

to curb irresponsible movements of the price rather than to establish stability within a narrow range of fluctuations.

(R.F. Kahn, RFK 2/12/2/80)

1.

While it is known that Keynes was a speculator who traded on behalf of himself, his friends and his college, perhaps it is less appreciated that his theoretical writings concerning speculative behaviour are grounded on his first-hand experience as an investor (in particular, in commodity futures, which had great weight in his portfolio) and that some of his policy recommendations – the buffer-stocks scheme in particular – stem from his experience in playing on those markets (see Kregel 2010).

If we look at Keynes’s investment in practice, we see that a huge quota of Keynes’s investment was in agricultural commodities, like wheat and maize (see Keynes 1971–1989, *The Collected Writings of John Maynard Keynes* [hereafter CWK] XII: 20–21), but also in the mineral sector, especially in copper, tin and lead; Keynes held shares in gold and diamond American mining companies and in refining and mining companies for the production of paraffin oil. He operated mainly on the London Stock

Exchange and Wall Street, but also on those markets in which different commodities were traded through futures contracts.

Large variations in the price of the commodities traded are the reason explaining the rise of a futures market, which is supposed to transfer the ensuing risk from producers and consumers (typically the “hedgers”) to the professional “speculators”. The role of the speculator in the great organized futures markets is that of a *risk-bearer*, that is, to provide an insurance against unexpected price changes, in exchange for a predetermined remuneration. His remuneration, in Keynes’s own words, arises from the fact that:

for the sake of certainty, the producer, not unnaturally, is prepared to accept a somewhat lower price in advance than what, on the balance of probability, he thinks the price is likely to be when the time comes.

(CWK XII: 261)

However, it is not by merely maintaining a long position in the futures market that a gain is assured. In fact, the speculator will gain only if he is well informed about market conditions, as to supply, demand, and new production for the relevant commodity, since this is the basis on which he acts. Thus the speculator has to engage actively in collecting market information to be successful when he takes a position and it is the accessibility of information that makes the organization of futures markets viable. Keynes himself contributed to collecting and systematizing information on various commodities with the memoranda on “Stocks of Staples Commodities”, prepared for the London and Cambridge Economic Service between 1923 and 1930 (CWK XII: 267–571).

Speculation in commodities was a “business” that required “hard work” as Keynes wrote to Kahn (in Kahn Papers,¹ RFK 13/57/193–4) – and a thorough, constantly updated knowledge of the market conditions for each commodity traded. Keynes acquired such a knowledge first as a speculator and then as a theorist, as he/once remarked to Hawtrey:

I do speak on this matter [...] from an extremely wide practical acquaintance with commodity markets and their habits.

(CWK XIII: 627–28)

Richard Kahn – Keynes’s “favourite pupil” – was introduced to the intricacies of speculation by his mentor, initially when he assisted Keynes

¹ Kahn Papers are preserved in the Modern Archives of King’s College, Cambridge. Documents in Kahn Papers are referred to as RFK followed by the archive reference.

as second Bursar of King's College, later when he took over the running of Keynes's and the College's finances during the heart failure crisis that kept Keynes out of bounds for months in 1937–38. The correspondence they exchanged over those months (about 300 letters) is a precious source of information about their dealings and their views (Fantacci et al. 2010).

With the outbreak of the war in 1939, both Keynes and Kahn had their dealings stopped by the foreign exchange restrictions and by their involvement in government jobs. Their intellectual exchange, however, continued (see Marcuzzo 2005: 33) and, drawing on their knowledge of the workings of commodity futures, shifted towards the search of ways to stabilize prices of primary commodities through coordinated intervention.

In this endeavour they built upon a broader debate among economists and specialists, running since the early 1920s, concerning the policies to be implemented in order to counteract the large fluctuations in prices of raw materials and foodstuffs (particularly wheat) that occurred especially after World War 1.² All of these contributions underlined the effects that wide fluctuations in production and prices of those commodities could have on the trade cycle, and compared the outcomes of different stabilization schemes, such as price policies run by private corporations (e.g. US Steel Corporation) or direct large-scale dealings in commodity markets by the governments. Different views were expressed about the role to be assigned to public intervention and its effectiveness in this specific field.

In 1926 Robertson also addressed this issue. He came to elaborate a “semi-automatic” mechanism for state control of stocks (based on reduction of stocks when prices increase and there is an insufficient supply and accumulation of stocks in the opposite case) as an anti-cyclical tool through his analysis of business cycles, which dated back to the years of his *A Study of Industrial Fluctuation* (Robertson 1915). In that work, Robertson deeply analysed the so-called “agricultural theories” of the cycle (W. Jevons 1884; H. Jevons 1910; Moore 1914), which linked economic activity fluctuations to the cycles of agricultural crops due to climatic conditions and established a causal relation between periods of poor harvests (and consequent reduction of purchasing power of the agricultural producers for acquiring both consumption and investment goods) and slumps. These theories were partially criticized by Robertson (1915: 75–106), who stressed that the relation between agricultural

² The question of stabilizing the prices of primary products was discussed in some evidences before the Royal Commission on Food Prices (in December 1924–January 1925), and in several articles in the *Economic Journal* (MacGregor 1924; Lewis 1925) and the *Quarterly Journal of Economics* (Berglund 1923).

production, industrial production and output as a whole was much more complex – depending on many different factors characterizing the economic structure of a country. Further qualifications were needed, according to him, in order to establish, in each case, the direction and strength of this causal relation (see also Presley 1978: 54–6). Furthermore the decreasing weight and importance of the agricultural sector throughout the 1920s, especially in industrializing countries, limited the explanatory power of these analyses of the cycle. Coherently with these considerations, in *Banking Policy and the Price Level*, Robertson (1926) worked out a theory of economic fluctuations in which monetary factors (such as the lack of resources to finance the purchase of investment goods) and real factors (such as the insufficient production of investment goods)³ concur – together with the difficulty to quickly adjust supply to demand in the case of investment goods – in producing the alternation of periods of over-investment and under-investment, which is at the origin of the cycle. It is within this theoretical framework (more specifically in the last chapter of *Banking Policy and the Price Level*) that Robertson suggested some measures of state intervention that, in his opinion, might prove to be more “fruitful” than those of “public works”; that is, a mechanism of buffer stocks not restricted to foodstuffs and raw materials but including also (storable) manufactured consumption goods. The aim of the scheme is that the state possess reserves of all these kinds of goods and use them (accumulating them out of the market or, conversely, releasing them gradually into the market) in order to “manage” the investment rate so as to counteract, and possibly avoid, excessive fluctuations of the level of economic activity (Robertson 1926: 96–8).

While taking a general view supportive of the idea of an active role of the state, Robertson pointed out, however, the enormous difficulties that such a system would have implied. He underlined the importance of influencing market expectations for the success of the scheme and made a suggestion that would be resumed by Kahn later on:

There must be a confidence born of experience that the public authority’s resolution is unshakable, and that in no circumstances will it liquidate except at such a time and such a rate as the public interest may dictate. It might even be desirable, however shocking to democratic sentiment, that the extent of the Government’s stocks should be unknown, and its dealings in commodities shrouded in a mystery as deep as that which at present envelops its dealings in dollar exchange.

(Robertson 1926: 98)

³ Robertson referred to “Short Lacking” in the former case and “Long Lacking” in the latter (Robertson 1926: 84 ff.).

Although Keynes formulated his proposal of a fully-fledged buffer-stocks scheme a couple of years after the publication of the *General Theory*, and as a logical sequel to it (CWK XXI: 456–70), it was the war times that provided the springboard for his and Kahn's ideas on commodities stabilization policies. In fact, while the British government was building up stocks of primary goods as a reserve for the war, Keynes suggested that the accumulation of foodstuffs and raw materials should be encouraged also in times of peace as a means to smooth commodity price fluctuations and to damp down the trade cycle.

Kahn in particular, spending one year in 1943 at the Ministry of Supply, worked on the post-war scenario for raw materials (prices and output) and in that capacity kept close contact with Keynes who had similar concerns, when drafting his proposals for a new international monetary order and payment system, as we shall see in Section 2.⁴ After the war and Keynes's death, it was Kahn who argued strongly in favour of buffer-stocks schemes, the case of tin being the one he investigated more in detail.

Kahn's general stance was that:

In principle [...] private speculation cannot provide [the] service [of price stabilisation] to the extent that is desirable, and in practice the continued instability of markets shows that it has failed to do so.

(RFK 2/12/1/13)

Like Keynes, he saw price instability as a source of inefficiencies and waste of resources, since productive capacity does not adjust smoothly and continuously to demand. If prices are high, investors react by increasing capacity, but by the time the new production reaches the market, prices may have begun to fall and the ensuing excess capacity puts further downward pressure on prices. Conversely, when prices are low maintenance and enlargement of capacity are halted, rendering supply short of demand when it rises in the upswing.

He was truly the "disciple" of Keynes in seeking a middle course between allowing the free play of market forces and public intervention to prevent waste and distress to consumers and producers.

In what follows we will review (Section 2) Keynes's position as it emerged from his constant concern with commodity prices, both as speculator and theorist, and we will examine the proposals of buffer stocks

⁴ Keynes commented on a Memorandum on Post-War Tin Position by the Ministry of Supply and the suggestion for a scheme of buffer stock to be implemented that Kahn had sent him (17 April 1944 in RFK 13/57/488–9).

he put forward in various drafts during the Anglo-American negotiations. In Section 3 we look at Kahn's own contribution, which brought forward the original intuition by Keynes, refining it with his usual attention to the finest details.

In the final Section 4, we will draw some general considerations on the relevance of these proposals for the stabilization of commodity prices, based on buffer stock, in the present sentiment of "a return to Keynes" in the attempts to cope with possibly the worst global economic crisis since the 1930s.

2.

From 1926 to 1943 Keynes repeatedly advocated government storage of foodstuffs and raw materials, and from 1938 onward elaborated various buffer-stocks schemes, as a means to stabilize prices.⁵ His active engagement in speculation in commodity markets probably added weight to his general view on market instability and the need to correct it, when it manifested itself in a low level of employment and economic activity, from whatever causes (low investment, liquidity trap, imbalance between supply and demand of primary commodities).

The continuity of his interest for the matter and the originality of his contributions have been already stressed by Dimand and Dimand (1990), but the crucial role played within his conceptual framework by buffer-stocks schemes as a fundamental means towards economic stability needs to be further investigated.

In 1926 Keynes made his first public endorsement of state control of stocks in an article for *The Nation and Athenaeum*, "The Control of Raw Materials by Governments".⁶ In fact, in this article, a complete scheme of buffer stocks is not yet fully developed. To be precise, replying to the indiscriminate condemnation of government intervention recently made by Herbert Hoover, then US Secretary for Commerce, Keynes discussed the

⁵ It is worth noting that just one year before, in 1937, the League of Nations Raw Materials Committee examined some proposals concerning the implementation of buffer stocks schemes (see the Report of this Committee quoted in International Labour Office 1943, Introduction: xxii).

⁶ In the same year, as we have seen in Section 1, Robertson suggested his buffer-stocks scheme, so it is hard to think that Keynes and Robertson did not compare their views on this matter, although, in their surviving correspondence of that period, there is no direct evidence of a discussion on this specific point (Sanfilippo 2005). Tonveronachi (1981: 521) and Sabbatini (1989: 56, fn. 5) argue that Robertson first theorized this type of scheme and Keynes (1926) is not mentioned.

possibility that in some commodity markets, where competitive conditions apply, the government accumulate stocks in order to counteract the insurgence of producers' abnormal losses in the case of excess supply. It was, therefore, in Keynes's view, the equivalent of an output restriction (CWK XIX: 547–8). Since in the case of raw materials the time needed for adjustment of production to demand conditions can be very long, this restrictive measure could be justified. The fact that this accumulation of stocks was considered by Keynes as a form of output restriction is testified by his conviction that this policy could be efficiently applied only for limited periods of time, after which some retaliation measures would be adopted by other countries, effacing the effectiveness of the measure itself. Keynes was not advocating here a buffer-stocks scheme as an anti-cyclical tool – as he did after 1937 – but as a “protectionist” measure to defend national producers of raw materials from exceptional losses. He urged, therefore, to distinguish policies aimed at defending monopolistic profits from those aimed at avoiding the evil effects of abnormal fluctuations of prices for both producers and consumers. Keynes ascribed such fluctuations to the “inability of the market to carry surplus stocks” (CWK XIX: 549) and hence advocated government intervention to “supplement the deficient carrying power of the market” (CWK XIX: 550).

The reasons why market mechanisms do not provide adequate incentives for the holding of surplus stocks were subsequently taken up in the *Treatise on Money*, Chapter 29. Here it is shown that conspicuous and highly uncertain costs/of carrying commodities provide a strong incentive to keep stocks of primary commodities at a minimum, and that this, in turn, contributes to accelerate any incipient slump and to delay any recovery.⁷ On the basis of this theory, Keynes argued that:

in certain cases valorisation schemes to provide by concerted action for the carrying of stocks are inevitable and defensible.

(CWK VI: 126)

The argument was further developed in Chapter 17 of the *General Theory*, where the high carrying costs of commodities compared with money are shown to “play an essential part” in the possibility of equilibrium with underemployment. The production of new capital assets, including stocks of commodities, is not profitable, and hence is

⁷ Hence the insufficient provision of storage does not arise from a “backwardation of forward prices below spot prices”, as argued repeatedly by Dimand and Dimand (1990: 115 and 117); on the contrary, storage is discouraged for Keynes by carrying costs, which result rather in a contango on futures markets (i.e. in a fall of the spot price below the forward price).

interrupted, whenever their marginal efficiency falls short of the money rate of interest; and the latter is kept high by the fact that money, as an asset, entails higher liquidity and lower carrying-costs than commodities:

what matters is the *difference* between the liquidity-premium and the carrying-costs; and in the case of most commodities, other than such assets as gold and silver and bank-notes, the carrying-costs are at least as high as the liquidity-premium [that commodities would have if they were the standard in which contracts and wages are fixed].

(CWK VII: 237)

In other terms, demand and employment may be depressed by the fact that money is preferred to commodities, as a store of value, since the former yields a positive return (thanks to its liquidity) while the latter yield a negative return (due to their carrying-costs). Keynes envisaged two complementary solutions to this problem: by “creating artificial carrying-costs for money” (CWK VII: 234); and by increasing liquidity and reducing private carrying-costs of commodities through public management of buffer stocks. In the *General Theory*, Keynes insisted on the former rather than on the latter.

When, two years later, he turned to buffer stocks with an article on “The Policy of Government Storage of Foodstuffs and Raw Materials” (1938), the conclusions drawn in the *Treatise* were picked up quite literally at the outset:

The competitive system abhors the existence of stocks, with as strong a reflex as nature abhors a vacuum.

(CWK XXI: 457; cf. CWK VI: 130)

It is true that before Keynes – even before Robertson’s scheme of 1926 the role of speculation and the limits of the competitive forces to stabilize the economic system (due to the insufficient carrying power of the market) were already recognized. As Dardi and Gallegati (1989: 39) point out, also Marshall (1919; 1923) – and Emery (1896) before him – had already shown that speculation on commodity futures markets could cease to provide hedging against risk, degenerating in a mere anticipation of mass-psychology (“expectations on expectations paradoxes”) with destabilizing effects. Nevertheless – as it is recognized also by Dardi and Gallegati (1989: 37–8) – it was only with Keynes’s analysis, also as a consequence of the enormous development in commodity futures markets, that in economic theory the destabilizing power of the speculation activity took a major role in explaining wide oscillations of prices of commodities exchanged in competitive conditions and the confidence in state

Table 13.1. Successive drafts of Keynes's buffer-stock scheme

Version	Title	Date	Archival reference	Publication status
1	(Preliminary draft)	By 20 January 1942		Not survived, mentioned in CWK XXVII: 105
2	(Second draft)	Early February 1942		Not survived, mentioned in CWK XXVII: 105
3	(Third draft)	Late March 1942		Not survived, mentioned in CWK XXVII: 105
4	(Fourth draft)	Early April 1942		Not survived, mentioned in CWK XXVII: 105
5	<i>The International Control of Raw Materials</i>	14 April 1942	Keynes Papers* 24/W/6/1/188–211	CWK XXVII: 112–34
6	<i>The International Regulation of Primary Products</i> (typescript)	28 May 1942	Keynes Papers 24/W/6/1/154–87	CWK XXVII: 488–501 notes the changes from this to the next, official version
7	<i>The International Regulation of Primary Products</i> (government document)	August 1942	Keynes Papers 24/W/6/1/239–47	CWK XXVII: 135–66
8	<i>The International Regulation of Primary Products</i>	Revised November 1942	Keynes Papers 24/W/6/1/212–38	Mentioned, but not printed, in CWK XXVII: 166
9	<i>The International Regulation of Primary Products</i> (War Cabinet, Committee on Reconstruction Problems)	February 1943		Printed in CWK XXVII: 168–94

* Keynes Papers are preserved in the Modern Archive, King's College, Cambridge, UK.

intervention became greater, in given and specified circumstances, than that in competition.

Another peculiarity of Keynes's analysis was his belief in the necessity to extend the control of storages to a global scale. By the end of 1941 Keynes was fully engaged in working on a scheme of international buffer stocks, the Commodity Control, drafting nine different versions between January 1942 and February 1943 (Table 13.1). Hirai (2009) carefully reconstructs the changes these drafts went through and shows how the final version – which was accepted by the British Treasury and the US administration – in a sense betrayed Keynes's original design and inspiration.

The Fifth draft contains the buffer-stock plan that Keynes hoped to get through; it proposed the establishment of international organizations (named Commod Controls), which would deal in individual commodities and would be composed by representatives of the major producing and consuming countries and managed by independent specialists. The task of each Commod Control was to fix the initial basic price at a level reflecting the existing conditions and thereafter to make the price to adjust as stocks exceeded or were short of the target rate, by selling or buying at a price within 10% below or above the basic price. The finance necessary for the operations would come either from the profit arising from the difference between selling and buying prices, or by arrangements between Central Banks, or by overdrafts provided by the International Clearing Union (CWK XXV: 190).

The underlying principle of the plan was that:

“Stabilisation” must not rest on the absurd assumption that conditions of demand and of supply are fixed, or that the chief purpose is to protect the increasingly uneconomic producer from the natural effects of world competition. Our object should be to combine the long-period advantages of free competition with the short-period advantages of ensuring that the necessary changes in the scale and distribution of output should take place *steadily* and *slowly* in response to the steady and slow evolution of the underlying trends.

(CWK XXVII: 126)

Stabilization is thus necessary *only* to avoid the dire consequences of free market mechanism:

the competitive system is in its ideal form the perfect mechanism for ensuring the quickest, but at the same time the *most ruthless*, adjustment of supply or demand to any change in conditions, however transitory.

(CWK XXVII: 131; emphasis added)

The purpose of buffer stocks was to reduce short-term fluctuations of commodity prices, allowing adjustments to long-period variations of tastes and technologies,⁸ thus providing:

a middle course between unfettered competition under *laissez-faire* conditions and planned controls which try to freeze commerce into a fixed mould.

(CWK XXVII: 111)

The effectiveness of such schemes relies on their capacity to encourage the holding of commodity stocks, by reducing their lack of liquidity compared with money holdings: in fact “the raw material stocks of a producing country are rendered by this means always liquid” (CWK XXVII: 129).

Moreover, buffer stocks were indicated as an essential supplement to public spending:

a weapon capable of producing large effects by rapid action, and of operating in the negative as well as in the positive direction, so that it can function as a stabilizing factor both ways. [...] Organised public works, at home and abroad, may be the right cure for a chronic tendency to a deficiency of effective demand. But they are not capable of sufficiently rapid organization (and above all they cannot be reversed or undone at a later date), to be the most serviceable instrument for the prevention of the trade cycle.

(CWK XXVII: 121-2)

In the same months, Keynes was also elaborating on behalf of the Treasury a plan to reform the international monetary system. One of the main features of the Clearing Union was to charge a fee on positive accounts of surplus countries, thus introducing a sort of carrying-cost on international money balances. The two institutions, Commodity Control and Clearing Union, were therefore intended as complementary and synergic solutions to the major causes of instability indicated in Chapter 17 of the *General Theory*.⁹

Again in March 1944, when the Anglo-American negotiations had eventually set aside the proposal of a Clearing Union in favour of the establishment of an International Monetary Fund, Keynes supported the plan of financing the accumulation of international buffer stocks by

⁸ The functioning may be compared with the fixing of target-zones for exchange rates, the stabilizing properties of which have been shown, for example, by Krugman (1991).

⁹ The existence of a link between the two plans in Keynes's intention is confirmed by the numerous cross-references that may be found in both.

issuing short-term bills that would be guaranteed by the commodities and discounted by the Fund (CWK XXVI: 198). This could be viewed as an indirect method of making a composite basket of commodities the basis for the creation of international liquidity, and hence of creating a commodity reserve currency, at a moment when more direct attempts at substituting gold would not have been diplomatically viable (CWK XXVI: 40).

When Hayek (1943) revived the plan for a commodity reserve currency (that had been first presented by Benjamin Graham (1933) in his article “Stabilized Reflation” and then in his book *Storage and Stability*; Graham 1937) which he submitted to Keynes (Keynes Papers, MM/5/223), he got from him as a reply that the proposal was desirable, yet premature, and that buffer-stocks schemes would be needed first, to prepare the ground:

Theoretically your points are sound. Practically I do not believe that the world is ripe for this sort of thing. It will only be after buffer stock plans and the like have been in working order for some time that world opinion will be prepared to move over to consider something like this. That is no reason for not putting it forward.

(21 March 1943, in Hayek Papers¹⁰ 30/19)

When Keynes eventually published Hayek’s article in the *Economic Journal* (June–September 1943), he added a brief note of his own, in which he expressed scepticism for a commodity standard and the objective “of imposing stable price-levels from without” (CWK XXVI: 33). By contrast, buffer stocks allowed stabilization of both prices and production, without having to control directly either, and leaving ample scope for the freedom of trade within predefined terms.

As is well known, Keynes’s ideas, however, did not get through. At the World Food Conference, held at Hot Springs in May 1943, the British Delegation presented a document entitled “Buffer Stocks”, which was based on Keynes’s plan (Tsou and Black 1944: 521 and 532–4). Nonetheless, the Conference on Trade and Employment in Washington in autumn 1945 took a position against the idea of buffer stocks, and a similar fate had its twin scheme, as the International Monetary Fund emerged as a child of White rather than Keynes.

¹⁰ Hayek Papers are preserved at Stanford University, CA, USA.

3.

It fell on Richard Kahn, with a considerable amount of work and effort, to revive and develop Keynes's original idea, and he had no better success. The opportunity was given to him by an invitation from Gerda Blau (Chief of the Commodities Branch of the Economics Division) to work as a consultant for the Food and Agriculture Organization (FAO), which in 1952 showed interest in stabilization schemes for commodities. Soon after Kahn signed a contract to produce a monograph on "Buffer-Stock Techniques" by the end of 1952. The deadline was not met, but in the summer of 1953 Kahn sent to Rome the table of contents of a book in 11 chapters and a first instalment of four chapters. These were enthusiastically praised by Gerda Blau¹¹ ("one of the best things that happened to FAO in a long time"), who granted him a further postponement of the deadline. The composition of the book went on until 1959; periods of renewed interest and intense work on Kahn's part alternated with periods when lack of FAO funds hampered the project, while Gerda Blau was growing increasingly sceptical about the possible acceptance of the proposal. The book was never finished. The first four chapters were extensively revised in 1954 and the following years, with the addition of new material, and their (probably) final version is preserved among Kahn's papers.¹² Also extant is a shorter and later version of the book, in five chapters, which draws heavily from the longer one and was prepared sometime after 1956. The manuscript is in Joan Robinson's handwriting and it is clearly still unfinished. No evidence has been found to explain Joan Robinson's role in the composition of the book, although her intervention is not surprising in view of their longstanding collaboration (Rosselli 2005).¹³ We know only the end of the story, when Kahn finally gave up the project in December 1959 and communicated it to Gerda Blau (RFK 13/13/28).

Although the book was never finished, from what has come down to us we can reconstruct Kahn's contribution. In both the "long" and the "short" versions, Kahn strongly argues in favour of stabilizing the prices of primary commodities, each in its own market, but through international

¹¹ Letter from Gerda Blau to Richard Kahn, 25 July 1953, FAO Archive, Gerda Blau Files.

¹² Neglected for years, the manuscript was first commented on by Palma (1994).

¹³ Lack of correspondence between Joan Robinson and Richard Kahn on this subject, and the fact that Gerda Blau's files for the years 1953 to 1958 are not extant, make a precise reconstruction impossible. However, more details can be found in Fantacci and Rosselli (2009).

institutions that promote “a more harmonious operation of economic forces” (RFK 2/12/2/1), acting on the same principles and not following a commodity-by-commodity approach.

The main tool for stabilization of commodity prices is the creation of an international buffer stock, managed by a group of experts, which dampens price fluctuations by selling the commodity when the price rises and replenishing the stock when the price falls. What makes Kahn’s proposal interesting is that it is a true example of the Keynesian “middle way”. Public intervention does not mean the introduction of rigidities *against* the market, but artful activities *in* the market. The buffer-stocks scheme is a middle way between “unfettered competition” and planning, and the same mixed nature characterizes its management, which must behave partly like a private speculator and partly like a public body, combining public interest with the need to make a profit in order to survive. This was the idea also of Keynes – as we have seen – who in fact wrote to Kahn, commenting on a proposal for a copper scheme:

It seems to me vital to have some system for allowing the play of the market for an appreciable preliminary period. The fact that the buffer stock scheme combines that with a measure of stabilisation is one of the major arguments in favour of it.

(22 February 1944 in L/K 275–6)

The buffer-stocks scheme defended by Kahn is peculiar in many respects. It does not have fixed selling and buying prices – not even with the provision that they can be altered from time to time – and it is not supposed to watch passively the movements of the market price in the range between the two extremes. A “ceiling” price and a “floor” price are conventionally supposed to give a feeling of security and encourage “good” speculation; that is, that which has stabilizing effects. However, at the same time, they are a threat for the Buffer Stock (as Kahn often simply calls this scheme and its management), which is not endowed with unlimited finance and cannot rely on a large amount of funds, if any at all, from the beginning. Indeed, when the market price gets close to the “floor” and the defence of it by the Buffer Stock appears credible to most traders and speculators, they will hold on to their stocks in the belief that there is little to lose and much to gain. If their belief turns out to be justified, the Buffer Stock, forbidden to buy the commodity except at the floor price, deprives itself of the opportunity of sharing the gain with the other speculators. If, on the contrary, the defence of the “floor” price does not look credible, the Buffer Stock will be obliged to purchase the whole stock

of the commodity at a price that is about to fall, with great losses if the belief of the market turns out to be justified.

As Kahn summarizes, the above scheme implies “heads the market wins, tails the buffer stock loses” (RFK 2/12/2/92). The Buffer Stock can avoid losses only by changing the buying price whenever it has the feeling that the whole world stock will be unloaded on to it, but this destroys the sense of security that it should create, given that there “is little security in a floor which drops from under your feet whenever you try to set foot on it” (RFK 2/12/2/91). If these are the consequences of fixing buying and selling prices,¹⁴ it is better for the management of the Buffer Stock to have free discretionary powers. If, however, it is compelled by diplomatic and political reasons to fix a floor and a ceiling, these must be set wide apart and operations at prices between them must be allowed.

The Buffer Stock managers must behave like cautious speculators. The rule suggested to them by Kahn, clearly based on his experience in the commodities market, can be summarized in “sell early and buy late”. The Buffer Stock managers must have their own assessment of the “normal” price; that is, they must take a long view and avoid or limit to a minimum operations based on a “short view” that are too risky, just as Keynes had argued. When the market price is lower than the normal price, they must wait to buy. If the fall in the price is temporary, they give up the opportunity of a small profit, but if it is not, they preserve their ammunition for later intervention, and prevent catastrophic losses for the producers. When the price rises, they must sell out their stock immediately and be content with a small margin, without hoping for a further rise and higher profits. If their intervention stops the price rise, they have attained their goal; if it does not, they have done their best anyway by slowing down the rise. What would be unforgivable is to make a profit by selling after the price has reached its peak and has begun the downturn (as a private speculator might do).

Given its discretionary powers, the management of the Buffer Stock requires “courage, skill and even a certain amount of low cunning” (RFK 2/12/1/94). If it cannot help fixing buying and selling prices, it must aim “to get the market to have as much confidence as possible in the *steadiness* of the dealing prices” as Robertson had pointed out. It must revise prices unexpectedly, at unpredictable moments in time, if possible in the direction opposite to what was foreseen. In other words:

¹⁴ The argument about the consequences of having fixed a “ceiling” price is similar.

those who think that the dealing prices will not be altered should hold that view with strong conviction, [...] in so far as there are some whose expectation is that the dealing prices will be shifted, in one definite direction, [...] they should hold that expectation with extreme lack of confidence.

(RFK 2/12/105)

Kahn, like Keynes, advocates buffer stocks for the sake of efficiency: there is not enough hoarding in the economy, since the speculators, who perform the useful task of carrying commodities from times of abundance, when they are produced at low costs, to times of scarcity, when they are produced at higher costs under diminishing returns, cannot afford the costs of financing and storage that increase with time and risk. Buffer Stocks face lower costs, thanks to economies of scale, and can operate at a loss, at least in the short period. Speculators seek short-term profits and they do not succeed in stabilizing the prices of commodities and in matching long-term supply with demand. Therefore the price does not signal the long-term trend of the market and the productive capacity is never adjusted to the necessities of trade.

During the boom in the aftermath of World War II, producers of primary commodities tended to lose the memory of the anguish of the Depression of the 1930s, but:

the very fact that the general level of prosperity has been so markedly improved has led to increasing discontent with the evils that remain.

(RFK 2/12/1/6)

Buffer Stocks, Kahn argues, are beneficial to producers and consumers alike. Producers are protected against the catastrophic consequences of too low a price, while consumers benefit from the elimination of marginal producers who are kept in the market by inefficient high prices. The public in general benefits from a buffer-stocks scheme that is superior to the alternative (and prevailing) scheme of defending the interests of producers by restricting output and creating an artificial scarcity (and lower employment). Investment in stocks provides an important counter-cyclical mechanism, with immediate effects on production and employment, as Keynes had shown. It is a form of physical investment in times of recession, when other investments are scarce. And Kahn, who first introduced the multiplier into economics, writes:

Additional employment in the production of any one primary product, resulting from supporting action by buffer stock, now means that the additional purchasing power thus released adds to employment and trade activity in other lines of activity as well, and the consuming countries will

share the benefit, in the form of additional demand for their exports to the producing countries.

(RFK 2/12/1/21)

However, Kahn is well aware that the buffer-stocks scheme has many limitations. It is not a panacea for all the evils that affect trade in primary commodities. It can do very little when the decline in prices is the result of a change in technical conditions of production or in the trend of world demand. Very little can be done for the producers of natural rubber after the invention of the synthetic substitute. Their right to a decent standard of living must be granted by other means, not by keeping the price artificially high. Above all, the Buffer Stock is not so efficient in stabilizing prices as its critics suppose and fear. Its unambitious objective is:

to curb irresponsible movements of the price rather than to establish stability within a narrow range of fluctuations.

(RFK 2/12/2/80)

In spite of all its limitations, risks and difficulties of management, the Buffer Stock is, in Kahn's opinion, a self-sustained scheme that provides a useful service to the economy and is worth trying, since the present system, based on protectionism, speculation and cartels, "will cause much unnecessary misery, waste and loss over many years to come" (RFK 2/12/2/101).

4.

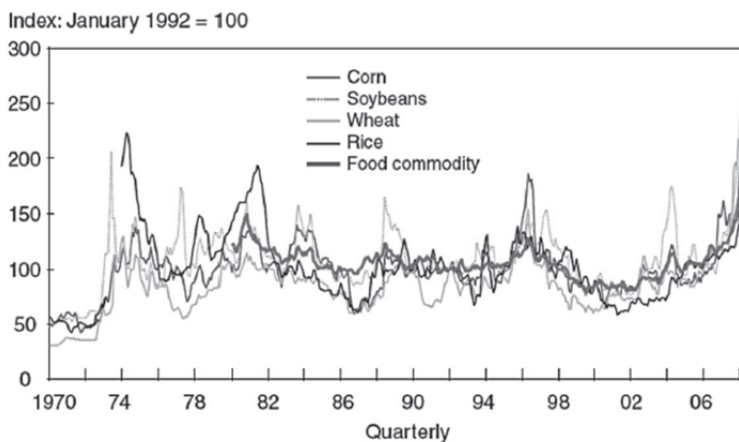
Over the past 50 years, buffer-stocks schemes have virtually disappeared from the international agenda and have received only scant attention even in the theoretical debate. The distribution of foodstuffs and raw materials, on a global scale, has been determined essentially by market mechanisms, with a growing importance of futures exchanges. On a national and regional scale, competition has been partially mitigated by public intervention, with the purpose of protecting producers, but this has occurred mostly in the form of tariffs and quantitative restrictions on production and trade (as in the case of the *Common Agricultural Policy* in Europe).

The combination of these mechanisms has resulted in wide fluctuations of commodity prices, both seasonally and over longer periods (as shown in Figure 13.1). The consequences of such fluctuations are burdensome for producers and consumers alike, and become particularly dramatic when

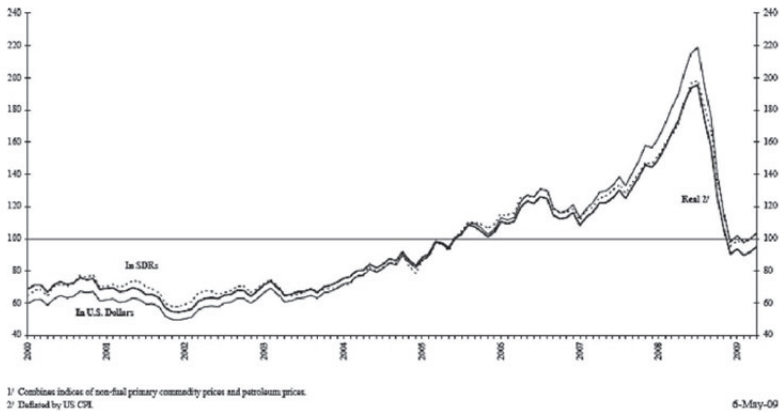
they affect the price of primary goods, on which the livelihood or the basic nutrition of an entire population depends.

Despite the persistence of the problems that they were designed to face, buffer stocks have never been implemented on a significant scale. The very idea of establishing public storage facilities at an international level has been completely abandoned in the 1980s, in the wake of a growing trend towards deregulation and globalization. However, in the past couple of years, the dogma of “unfettered competition” has been shaken by the global financial crisis. Even commodity trading, which typically occurs on the broadest and most sophisticated futures markets, has suffered unprecedented strains. The capacity of such markets to ensure an efficient allocation of resources through the smooth functioning

Figure 13.1. Food commodity prices, 1970 to 2007



Source: International Monetary Fund: International Financial Statistics.

Figure 13.2. Indices of primary commodities prices, 2000 to 2009 (2005 = 100)

Source: IMF Primary Commodity Prices
 (<http://www.imf.org/external/np/res/commod/index.asp>).

of the price mechanism has been radically challenged by the steep rise in the prices of food, energy and raw materials, and their subsequent fall (Figure 13.2).

Today, the ideological stance in favour of free markets has substantially receded, yet simply to be substituted by an opposite, and perhaps equally ideological, stance in favour of regulation in the form of more or less admitted protectionist policies. It may be possible, therefore, and not only opportune, to reconsider the “inability of the market to carry surplus stocks” that Keynes identified as a major cause of the wide fluctuations in prices and production, which contributed to worsen the trade cycle and to deepen interwar depression. And, perhaps, we may be in the position to appreciate even the remedy proposed by Keynes, as an ideal complement to the International Clearing Union, and in the same spirit of a regulation not designed to contrast, to impede or to substitute, but rather to facilitate private transactions in commodities: the International Regulation of Primary Products.

When Kahn elaborated on Keynes’s buffer-stocks scheme, he defined its role and the tasks of its management in detail. The managers must not rely on mechanical rules, but be guided by “informed opinions” about the long-run tendencies of the market. They must be as knowledgeable as the speculators, but they must act only to provide finance to the Buffer/Stock and aiming at the smooth working of the economy. In other words, they

must be speculators for the public interest. The question arises whether suitable candidates for the task can be found, not so much as their knowledge of the market, but as their commitment to the public good is concerned. How can we be reassured that they will not exploit their position for their own private gain? In the light of the disaster of the present crisis fuelled by irresponsible market behaviour, it may be a risk worth taking.

In conclusion, the Keynes–Kahn buffer-stock proposal may seem audacious, but as Keynes said, referring to the many questions that his plan raised:

these questions are not easily answered. But it is fair to point out that most of them apply equally to *any* schemes for introducing order into international trade. We may throw our hands in at the start on the ground that it is too difficult to improve this awkward world. But if we reject such defeatism – at any rate to begin with and before we are compelled to acknowledge defeat – then the questions to be asked at so early a stage of our work need only be whether this particular machinery for introducing international order is exposed to more difficulty [...] than alternative proposals directed to the same general purpose.

(CWK XXVII: 122)

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CHAPTER FOURTEEN

KEYNES AND THE INTERWAR COMMODITY OPTION MARKETS

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As regards the principle of investment in Commodities, I know the conventional view. But a pretty long experience convinces me that so far as risk is concerned they are much safer than anything else, since of course intrinsic value remains and one is always protected from catastrophic losses. Held with obstinacy they are, in my experience, far the safest form of investment.

(Keynes Papers, PC/1/5/89, 1938–39, quoted in Holder and Kent 2011: 5)

1. Introduction

In the first quarter of the twentieth century, options began to be widely employed in the main financial centres in Europe and the USA for trading in spot and futures markets. From 1921 onward, Keynes embarked upon investment in these derivatives mainly – but not exclusively – in the commodity markets, showing a true fascination for this method of speculation. This type of financial investment he pursued mainly in the 1920s, with only a few operations undertaken during the 1930s. The option markets in which Keynes traded were metals – in particular copper, lead, spelter and, especially, tin. Besides metals, Keynes dealt in options

* We are grateful to Giulia Bandino and Iolanda Sanfilippo for their excellent research assistance and to Riccardo Cappelletti, Nicolò Cavalli and Gianluca Giglio for their help in collecting data. We wish to thank, without implicating them, Marco Dardi, Ivo Maes, Paolo Paesani, Dimitris Sotiropoulos and two anonymous referees for helpful comments and suggestions. However, responsibility for any remaining errors and omissions is ours alone.

also in other commodity markets, such as rubber and linseed oil, currencies and sparingly in ordinary stocks and government securities.

In this paper we offer a reconstruction of Keynes's speculative activity in commodity options, drawing on the archival material kept in the Keynes Papers held at King's College, Cambridge. This reconstruction is, to the best of our knowledge, entirely new to the literature. The main sources searched are Keynes's ledgers, the weekly statements of the Tilton Company (set up in 1926 for fiscal purposes) and the correspondence between Keynes and his broker, the firm Buckmaster & Moore – in particular with the firm's associates Oswald Falk and Rupert Trouton. These sources contain information about quantities, strike prices, types of options, *premium*, margins, commissions and profits and losses (net and gross). While more work is needed to gain a full understanding of the working of the commodity options at the time,¹ we hope that our investigation into Keynes's dealings in options will also contribute towards research in that direction. As it is, the scope of our paper is much narrower: our aim is to provide an analysis of this particular aspect of Keynes's investment behaviour, investigating his capacity to predict market trends and offering a preliminary assessment of his performance.²

2. Keynes's Investment Activity: An Overview

In Keynes's life-long investment activity, the year 1919 represented a watershed. Before that year (and since 1905) Keynes had operated almost exclusively on his own account and on a very modest scale. His income per annum remained low throughout the entire period: until the fiscal year 1914–15 it was below £1,000, mainly accounted for by the revenues deriving from his academic activity (about 80% of his total income) (see Moggridge 1983: Table 1). Things started to change the year after, when his investments in securities began to increase (Moggridge 1983: Table 2) as his income rose, touching on £1,300, only 27% of which deriving from his academic activity. But the turning point in Keynes's revenues occurred

¹ The secondary literature on option markets in the 1920s is scanty: see Poitras (2009) and Mixon (2009; 2011), neither of whom specifically address aspects of commodity option markets.

² The assessment of Keynes's general performance as an investor in shares and speculator in currencies and commodities would require a thorough and detailed reconstruction of his portfolio over the whole period in which he was active in those markets, which is part of a wider research project still in progress.

in 1919–20, when his annual income reached a peak of £5,000.³ This exceptional rise was evidently the result of the publication of an extraordinarily successful book, *The Economic Consequences of the Peace* (Keynes 1971),⁴ which explains why his academic and publishing activity once again came to constitute the main source of his total income over these two years. This happy circumstance – which afforded him a revenue four times higher than that of the previous two years – together with the restoration of the financial markets after the end of World War I may explain why Keynes started to engage in speculation in this very period, operating mainly through futures contracts, first on the foreign exchange market and then on the commodity markets, on such a scale and with such regularity as he had never ventured upon before.

Subsequently – having acquired some experience operating on his own account – Keynes continued his speculative activities, starting to operate also on behalf of others, mainly friends at the beginning (Moggridge 1983: 5) and successively also institutions and companies.⁵ He invested in association with Oswald Falk, who was one of his former colleagues at the Treasury and partner of Buckmaster & Moore, his broker. From 1923–24 onward the main source of his revenues became his professional investment activity while his academic and publishing activity played a secondary part (Moggridge 1983: Table 1).

Although his speculations on the foreign exchange market at the beginning of the 1920s brought him some – not negligible – losses, by the end of 1922 these losses were completely recuperated,⁶ especially thanks to his successful speculation in the commodity futures markets (metals and cotton) and, to a lesser extent, in securities. In fact, taking Keynes's investment income by source (Moggridge 1983: Table 4), we observe that starting from 1922 and until 1930 it was his speculative activity in commodities that yielded a greater contribution than his speculation in currencies and dividends or capital gains (denominated both in dollars and

³ Since then and during the 1920s, his annual income settled at values ranging from about £4,000 up to more than £6,500 in 1926–27.

⁴ The book was first published in England at the end of 1919 and just one month later in the USA. It was immediately a great success: 60,000 copies were sold in the first two months and over 100,000 by the end of July 1920 (Moggridge 1992: 335).

⁵ First, King's College, where Keynes was appointed First Bursar in 1924, but also the National Mutual Life Assurance Society, Provincial Insurance Company, Independent Investment Trust, AD Investment Trust and PR Finance Company, where he was on the boards.

⁶ On 31 December 1922, in fact, Keynes's net assets were more than £21,000 (see Moggridge 1983: Table 3).

sterling) deriving from shares and securities. Accordingly, speculation in commodities represented the main debt source in 1925 and 1928, when his investments went in the wrong direction. Early in the 1930s, the pattern of Keynes's portfolio changed and the main source of his investment income was from capital gains and dividends.⁷

From these data clearly emerges the centrality of commodity investments in Keynes's portfolio in the 1920s. He began the decade with a loss, with a negative income amounting to £10,000, deriving from his unsuccessful speculation in foreign exchange, while his speculation in commodities had yet to get underway. Yet in 1921 things were different: his gains from speculation in currencies almost equalled his losses from the previous year but at the same time he gained approximately £2,000 from his speculation in commodities.

From 1922 onward, Keynes reduced his speculative activity in currencies and in parallel increased his investment in commodities (metals and crops).⁸ From 1923 onward (and until 1928), the speculative activity in commodities (including his investment in options) contributed to his income by between 55% and 65%. This period of prevalent investment in commodities practically ceased at the end of the 1920s, after the great losses of 1928 and those following the 1929–30 crisis. In fact, although his investment in commodities spanned over the whole of the 1930s – and until 1939, the year in which they finally ended because of the outbreak of World War II – as from 1931, the main source of Keynes's income (and the main cause of his losses) became shares and securities. In 1936, for example, dividends and capital gains (both in dollars and sterling) accounted for 75% of his total investment income, but commodities only for 17%. After 1936, and until 1945, the largest portion was represented by the capital gains deriving from securities denominated in dollars.

According to Moggridge (1983: 15), the financial setback that Keynes experienced at the end of the 1920s (when securities prices collapsed in September–October 1929) had its origins in the previous years and was mainly due to his speculative activity in commodities, and in particular to the combination of three factors: his long-term holdings, his ample recourse to loans in order to fund his investments and his short-term speculation. In fact, Keynes's investment activity in commodities in the 1920s was characterised by a highly speculative profile, especially from

⁷ For example, in 1937 capital gains in dollars played the major role (and represented his main debt source in 1938, when he came in for heavy losses), which testifies to the marked increase in his financial investment in US securities.

⁸ Indeed, in that year the income deriving from his investment in commodities almost doubled that deriving from his speculation in currencies.

1922–23 onward, when he started to resort to sophisticated derivatives, such as options. As from January/February 1922, the options Keynes bought were in copper and tin and, immediately after, also in spelter and lead, as we shall see. In 1923–24, Keynes extended his investment in options also to other commodities, in particular rubber and linseed oil. During the 1930s, Keynes's investment in commodities was characterised mainly by futures trading while his recourse to commodity options was limited only to a few operations in tin.

3. Keynes's Investment in Commodity Options: A View from His Ledgers, Statements and Correspondence

Keynes's ledgers tell us that his first operations in commodity futures were in American cotton,⁹ and in particular a few long positions in February 1921 (SE/11/2/4),¹⁰ while his intention to begin to speculate in futures on metals is documented by a letter that Oswald Falk wrote to him in September 1921:

If you want to deal in tin or copper I think we ought to give you a chance, though it can only be on a small scale, say up to £10,000 worth of the two combined. A 20% margin should be enough at these prices.¹¹

(16 September 1921, SE/2/1/128)

In fact, just three days later, Falk informed Keynes: "I [Falk] have bought for you 50 tons of copper and 45 of tin" (19 September 1921, SE/2/1/134).¹²

Just two months after this opening of a few long positions in tin and copper futures, Keynes ventured into dealing in metal options.¹³ This

⁹ For analysis of Keynes's activity in cotton futures, see Cristiano and Naldi (2014).

¹⁰ The classification number is given according to the "Catalogue of Keynes Papers", King's College, Modern Archives, Cambridge, UK.

¹¹ These prices were respectively £156.10s for tin and £69.5s for copper (SE/11/2/7).

¹² The purchase of these two contracts is also registered in Keynes's ledgers (SE/11/2/7). The total value of the two contracts amounted to £10,505 (£7,042.10s for tin and £3,462.10s for copper).

¹³ From the Keynes Papers we also know that in those times option contracts were not available for all the commodities exchanged in the UK markets. In December 1921, Buckmaster & Moore, for example, explained to Keynes that according to the cotton merchant firm Newall & Clayton based in Liverpool: "there is very rarely a transaction done in [cotton options] here now, nearly all the responsible

happened after a brief by his former pupil at King's, Rupert Trouton (at the time also working for Buckmaster & Moore), who, in a note probably written in autumn 1921, explained how they worked. Trouton wrote:

Metal Options

Options are of two kinds.

- i) An ordinary call option at the moment is about 25/- [shillings] for copper and about £5 for tin. The option entitles the purchaser to exercise the right, by notification 3 days before the end of 3 months, to take up the metal at the price on the option contract, which is the price when the option is purchased, of 3 months forward. If the spot copper is £67 and forward £68 then the 25/- entitles the purchaser to take up copper at the end of three months for £69.5.0¹⁴ (including his initial expenditure on the option).
- ii) The type of option which includes "buyer's option to double" is as follows. In return for a sum at present about £3 over forward price for tin the buyer purchases tin much like the ordinary forward purchase but has the additional right to double the amount he takes or not, as he pleases, having to notify 3 days before the end of the 3 months what his intention is. This option really amounts to a combination of two things: an ordinary forward purchase and a call option. Instead of the call option being arranged separately it is attached on to an otherwise normal forward purchase. For some extraordinary reason the price of a call option does not always equal the surcharge when there is "buyer's option to double". At the present moment the option to double is purchased for 25/- extra in the case of copper and £3 in the case of tin while the call option is 25/- for copper and £5 for tin.

(SE/1/2/126-7)

people in this market refuse to trade in them, as they are not recognized by our Association or in a court of law. We accordingly prefer not to deal in them on your behalf" (5 December 1921, SE/2/1/143). In fact, we have found evidence of only one single operation of a put option in American cotton bought on the 8 April 1925 (SE/2/5/75 and 77). In a letter dated 10 March 1924, once again, Buckmaster & Moore explained to Keynes, who evidently had enquired about this possibility, that sugar options were not dealt with in the London market (SE/2/4/28). Whereas, in the same years, we have evidence that Keynes also traded in stock and government securities options (letters from Buckmaster & Moore to Keynes: 25 April 1923, SE/2/2/246; 17 March 1924, SE/2/4/35). For a detailed explanation of the working of the option market in government securities, see the letter from the broker firm Capel Cure and Terry to Keynes (25 May 1922, SE/2/2/7).

¹⁴ We remind the reader of the old British money system: 1 pound = 20 shillings and 1 shilling = 12 pence.

On 1 December 1921 we have the record of the first transaction in copper options undertaken by Keynes, followed by more in the following three months, which were not exercised (SE/11/2/7). On 19 January 1922 he attempted a buyer's option to double (BOD) on tin that he did not exercise because at maturity the price dropped.

By mid-1922, Keynes had become more confident about the working of the option market and remained very active in it from 1922 to 1925. Later he traded in options sparingly and on a smaller scale until the early 1930s. After 1932 he reduced his exposure in metals, both in futures and, even more drastically, in options. In 1933 he dealt only in tin options (TC/4/3/1–16), while in copper he invested only in futures contracts.¹⁵ In the same years, Keynes concentrated his speculative activity in futures crops (corn, cotton, wheat and maize) and other commodities, such as rubber, lard, cotton oil, whale oil and linseed oil (TC/4/2–3).

Keynes was attracted to the metal option markets by the possibility to speculate on price movements with a financial device that appeared particularly flexible. The options in which he usually traded had three-month maturity, but occasionally they had longer (e.g. six or nine months on copper and spelter, SE/2/2/170, 179) or shorter (e.g. one month on lead and spelter, SE/11/2/17-19-23-29-32) maturities.

Before analysing Keynes's dealings, it is useful to consider the types of options available in the London market and the various costs involved.

Besides ordinary call and put options, other types of instruments were available. First, the double option, which was a combination of a put and a call, giving the right to exercise only one of the two at the expiration date.¹⁶ This type of option was quite expensive and was used when prices were particularly volatile since the holder could gain not by anticipating the direction of price movements but by the size of changes, since the double could be exercised as a put or as a call.

A particular type of contracts – as we have seen from the letter by Trouton – were the BOD and the seller's option to double (SOD), which was an ordinary sale of a future with the purchase of a put option attached. If the amount was not doubled at the expiration date (i.e. the option part was not exercised), these contracts worked in all respects as standard futures contracts, although they had been negotiated at a price that was

¹⁵ His investment in the lead market ceased completely in the 1930s, while in spelter Keynes bought only two double options in October 1934 for hedging his exposure in futures (TC/4/3/52).

¹⁶ At that time, this type of option was also called "straddle" in the USA (see Smith 1922: 46) or "put-and-call" in England (see Higgins [1896] 1906: 7).

higher (in the case of BOD) or lower (in the case of SOD) than the standard future price in order to include the option *premium*.

All these types of options, such as the standard call and put, were of the European type, namely they could be exercised only at maturity.

The price of the option changed according to the type of option and the metal traded.¹⁷ At this stage of our investigation we were unable to detect any option pricing formula consistently followed and we had to rely on the information scattered in the ledgers and correspondence, which seem to indicate a rule-of-thumb fixed amount (ranging from £1 to £3) added to the three-month future price of the metal.¹⁸

The cover necessary to carry a position with a broker varied according to the instrument and the underlying commodity. For example, in July 1922, Buckmaster & Moore gave Keynes the following quotes:

We expect the following proportions to cover to be maintained intact at all times on open positions at their current valuation: in exchange 20%, in Commodities 30%, on Call options Payment in full. We are content that not only cash balances standing to your credit and securities deposited with us (reckoned at their current market value), but also book profits on your open position, should count towards the proportions of cover required.

(SE/2/2/25)

The commission charges in particular merit careful attention, since they played an important part in determining whether each dealing was profitable or at a loss.

When the option was exercised and the underlying futures contract either bought (in the case of a call) or sold (in the case of a put), Buckmaster & Moore charged commission of 0.1% on the value of the

¹⁷ For example, on 28 February 1923, Trouton explained to Keynes: “Options are becoming much more expensive. The Call option on Copper is 32/6 bid; the double option on Copper is 60/-; the BOD on Copper is at least £1 over three months, probably more like 25/-. The double option in Tin is £11.10/-; the BOD in Tin is £4.10. Over three months and the three-month Call in Tin might be got at £6” (SE/2/2/181).

¹⁸ It has been rightly pointed out that the pre-twentieth century option markets literature analyses historical option pricing determination with modern methods (Mixon 2011: 4). In fact, “Option markets existed long before option pricing models. For centuries prior to the development of the Black–Scholes model, option buyers and sellers negotiated prices at which voluntary trade occurred” (Mixon 2009: 171). See also Sotiropoulos and Rutterford (2014: 10): “sophisticated option trading was possible long before the perfecting of the B[lack]S[choles]M[erton] pricing model in the 1970s on the basis of a knowledge spontaneously developed in a practical form in the everyday life of market participants”.

first transaction, namely on the strike price times the quantity involved and 0.1% on the value of the second transaction, namely the market price of the metal traded times the quantity involved. To this, the metal broker's commission,¹⁹ varying between approximately 0.5% and 1% according to the metal, had to be added (see SE/11/2/90 and SE/11/2/9).

Here is an example drawn from the ledgers:

On 17 March 1922, Keynes bought a call option for 100 tons of copper at the strike price of £61 per ton, with expiration date on June 17. The sum paid by Keynes was £137.10s. On June 15 he exercised the option, since the price at which copper could be sold was £61.15s per ton. The commission on the first transaction was $0.001 \times £6,100$, i.e. £6.2s, the commission on the second transaction was $0.001 \times £6,175$, i.e. £6.3s.6d.

To this must be added a commission of 0.5% on the first transaction due to the metal broker, i.e. £30.10s. Thus the total commission charges amounted to £42.15s.6d.

So while the difference between the strike price and the market price at the time when the option was exercised times the quantity involved in the contract gives a positive difference of £75, when we compute the net profit by subtracting to this sum the initial cost of the option (£137.10s) plus the commissions we get a loss of £105.5s.6d.²⁰

In the next sections we will focus on the four markets in which Keynes was most active in his option trading: copper, tin, lead and spelter. For each commodity market we present an overview of the open interest of the various types of options he traded, followed by an analysis of the pattern of his option dealings and a breakdown of profits and losses.

In particular, for each of the four markets we present a weekly account of Keynes's position in options (see Figures 14.1–14.4) according to his ledgers, where he recorded the date and price at which each position was opened and closed, the type of option contract and the quantity involved. In the ledgers we find also the strike price, the total cost of the option (given by the *premium* times the quantity involved in the underlying future) and indication of the cases in which the option was allowed to expire. The weekly time series of both the spot and the typical three-month future prices are derived from *The Times* online archives as recorded for each Friday, while for the strike price we do not have a weekly series but only the entry recorded by Keynes himself in the ledgers.

¹⁹ The metal brokers quoted in the statements and the correspondence are Vivian Younger & Bond, Budd and Candover.

²⁰ This is exactly the amount that Keynes registered in the ledger within square brackets as net loss deriving from this operation (SE/11/2/7).

Then, for Keynes's dealings in options in each metal (see Table 14.2) we compute: (i) the value of the gross profits, which are given by the price differential between the market price and the strike price times the quantity involved in the underlying futures for all the options exercised, while they are equal to zero for the options bought which were let expire; and (ii) the value of the total net profits (calculated by subtracting the total commission charges and total costs of the options bought from the gross profits). Considering the data in Table 14.2, it emerges that good price forecasting (testified by positive and high levels of gross profits) does not necessarily imply high net profits, simply because of the great burden of all the transaction costs when buying and exercising the options.

Finally, a comparison between net profits and losses realised by Keynes in the four markets is provided, together with an appraisal of his investment strategies and behaviours.

4. Keynes's Trading in Metals

In Keynes's times, the leading market for futures and options trading on metals was the London Metal Exchange (LME), which, established in 1877, had by the 1880s grown and developed as the most important organised world market, in particular for exchanges on non-ferrous metals, namely tin, copper, lead and spelter (Forrester 1931). The contracts usually traded had three-month maturity but longer or shorter maturities were also admitted. In 1919, when dealings had just been restored after the end of WWI, it was a period of disturbed trade to which many factors, common to all kinds of business, all contributed (see Economist Intelligence Unit 1958). First, there was the problem of readjustment of capacity, stock and prices, aggravated by labour unrest, political uncertainties and fluctuating exchange rates. A further source of trouble and instability, which was specific to metals trading, came from the drastic reduction in world demand that – unlike other commodity markets – took place just after the armistice, when armament requirements suddenly ceased. As a consequence, prices immediately began to fall from wartime levels, but this decline was brief and immediately succeeded by a remarkable inflationary boom. Prices reached a peak in February 1920 but collapsed again shortly after, in March and April, and remained low for the remaining part of the year and indeed during 1921, basically because of an excess of supply and accumulation of stocks. Another source of trouble lay in the increasing integration of international metal markets, which made the LME in particular much more sensitive to events in the USA, like metal deliveries there or the selling policies adopted by the American

producers, as a consequence of the accrued importance of the USA as world producer (and consumer) and the corresponding decline of Great Britain's role.

Thus when Keynes started to deal in metals, in 1921, the general conditions of these markets were on the upswing but highly volatile and so provided ample scope for speculation.

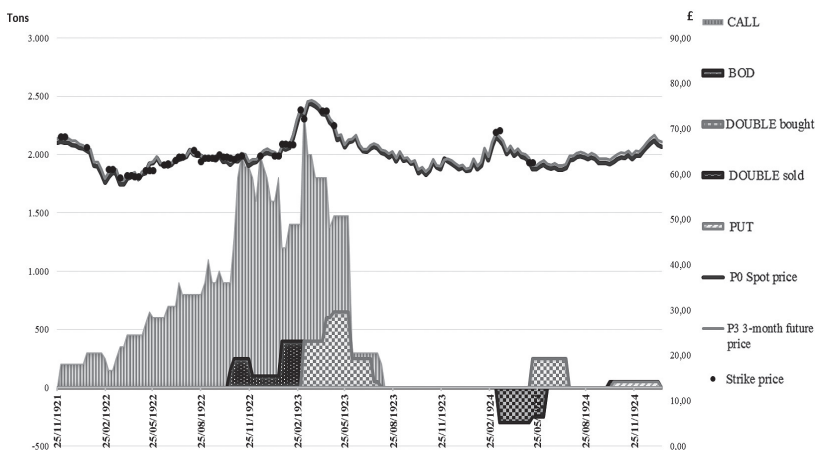
Let us examine in more detail how Keynes operated in each metal market. In presenting our reconstruction, we have tried to provide an answer to the following questions: how did Keynes form his expectations? What strategy did he adopt? Was Keynes on average good at predicting price trends? Did he on average reap profits or suffer losses in his dealings in options?

4.1. Copper

Keynes entered the copper option market at the beginning of December 1921, after an initial unsuccessful purchase of one future copper contract. He would be active in that market until December 1924 (see Figure 14.1), when he basically suspended his dealings in options;²¹ he resumed his activity with a small-scale operation in futures in the spring of 1929 (SE/11/2/54) and again later in 1937 (February/April and August/September, TC/4/3/156–163 and TC/4/3/180–186).

²¹ We have evidence only of one put traded by Keynes on 15 March 1929 (SE/11/2/54).

Figure 14.1. Copper: Keynes's weekly position in options and prices, December 1921 to December 1924



Options were the contracts most traded in copper by Keynes, as measured by the number of positions opened (53). Most of these options were call (39), followed by double (7), BOD (5) and put (2) (see Table 14.1).²²

Table 14.1. Keynes's investment in metals by type of contract, 1921–39

	Tin	Copper	Spelter	Lead	Total
Number of futures	166	14	11	38	229
Number of options	129	53	22	64	268
Call	72	39	20	60	191
BOD	15	5	0	0	20
Double	14	7	2	4	27
Put	21	2	0	0	23
SOD	7	0	0	0	7

²² Since one of these two puts – the one bought on 16 October 1924 – was not exercised (SE/11/2/29) and the other one was traded only in 1929 (see fn. 21), we can conclude that in the period considered here Keynes did not trade in copper put options. Furthermore, in neither case were put options associated with long positions in futures contracts for the purpose of hedging.

Keynes's timing of trading and choice of instruments reveal that he had bullish expectations until April–May 1923. His earlier bullish expectations in the first year were supported by the evidence of depressed prices for the previous two years as well as the data he had collected for his “Memorandum on Stocks of Staple Commodities”, which showed that the available supply of copper was decreasing – gradually, but steadily – while “consumption has remained comparatively steady” (Keynes 1983: 283).

Unfortunately, these expectations were to be disappointed, since in the early months of 1922 futures prices dropped from £66 (January) to £58 (between March and April), to rise again in May and remaining around the £63–64 level throughout the year. In January 1923 there was a reversal of the trend with a peak of £74 in April, followed by a decline that persisted in the following year, reaching a low of £62 in May 1924. From October 1924 and until January 1925 the prices increased again, followed by a downward trend that reversed only at the end of 1927. Keynes's strategy in copper options was 3-fold:

- (i) Long position in calls until October 1922. Notwithstanding the falling trend of prices, he was able to exploit the volatility in his favour, making a modest gain.
- (ii) Long position in calls and BOD until March 1923. Since the price trend was upward in the first quarter of 1923, this strategy paid off and Keynes was able to exercise the calls and BODs in a bull market.
- (iii) Hedge of long positions in futures with doubles, which were exercised as put. Keynes used this strategy between March and August 1923.

An example taken from his operations in April–July 1923 (SE/11/2/19) can help to clarify Keynes's investment behaviour in the latter case. On 16 April, Keynes opened a long position with two three-month futures contracts of 75 and 125 tons at the respective price of £74 and £74.2s.6d. The same day he bought a double option of the same maturity and total quantity (200 tons), with a strike price of £74 and premium equal to about £3.8s per ton, for a total cost of about £686. According to our time series drawn from *The Times* online archives, on 13 April the spot price came to £73.5s, while the three-month future price was £74. Keynes's behaviour reveals bullish expectations for the following three months but at the same time he adopted a hedging strategy – against a possible drop in prices – buying a double option. Near to maturity, Keynes's bullish expectations were disappointed. Indeed the spot price on 13 July fell to £65.12s.6d. Keynes exercised the double option as a put, thereby exactly offsetting the

losses deriving from the liquidation of the two futures contracts. On these he came in for losses equal to the difference between the future price and the spot price times the total quantity involved, i.e. £1,800, which is exactly equal to his gain coming from the exercise of the put option. This is the reason why in the ledger (SE/11/2/19) Keynes links together the two futures and the double option entries with a curly bracket writing.

As for Keynes's performance in copper options, from the ledgers we learn that the period in which Keynes's investment was most successful was around March–April 1923 (SE/11/2/17), while in the following year he bore losses for an amount almost equivalent to the profits previously made (SE/2/11/24 and 29).

4.2. Tin

Tin was the commodity most traded by Keynes. He entered the market in September 1921 and carried on trading in it almost uninterruptedly until 1939, when all his commodity dealings were forcefully suspended due to the outbreak of World War II. Between January 1922 and July 1929 he was very active in options, alongside large exposures in futures; he then suspended all trading in this market for 18 months and resumed it in April 1930, continuing until August 1931; he traded options occasionally again between April and June 1932 and between January and April 1933, when he practically left the tin option market (see Figure 14.2). He returned twice a few years later, between June 1936 and January 1937 and between April 1938 and April 1939, taking up mainly long positions in futures (TC/4/3/124, 138, 216 and 257).²³

When Keynes began trading tin options, futures prices had been rising since he first entered the market; from £154 in February 1922, they had reached the £181 level by October 1922, with ample oscillations around the trend. By March 1923, prices had climbed to the £225 level, suddenly reverting first to a declining trend, which bottomed at £182 in August, and then rising again to £292 in March 1924. From then on prices fell, with wide oscillations to £241 in May 1925, but quickly climbed back to the previous year's figure and peaked at £300 in October 1926. They remained around that level until the middle of 1927 and then began to decline steadily, reaching £204 in July 1928. When Keynes resumed his option dealing in April 1930, futures prices were oscillating around £160; when he left the market they were down to £110. In the last two periods of his

²³ We have evidence of only two double options sold by Keynes in July 1936 (TC/4/3/128) and July 1938 (TC/4/3/226).

activity in tin options, prices were around £107 in mid-1932, but by April 1933 they had returned to the £150–160 figures of 10 years before (see Figure 14.2).

Keynes realised fairly quickly that tin was a metal with high price volatility, which made it very difficult to predict both its trend and deviations from it. The reasons he gave were 2-fold: (i) tin mining and consumption of smelted tin were highly inelastic, while demand for stocks became highly elastic as soon as they increased from a low working minimum; and (ii) reliable information on the level of existing stocks was lacking. It is not surprising, therefore, that Keynes's expectations were formed mainly from guesses on the level of "visible" and "invisible"²⁴ stocks, besides forecasting the level of production and consumption on the basis of the data available. Moreover, as explained by Cavalli and Cristiano:

tin represented a very special case among staple commodities. In itself, the very low level of tin stocks, usually below one month consumption and sometimes as low as ten-day consumption, made the tin market rather susceptible of manipulations, because any small amount of privately owned stocks could suffice to exert an influence on prices. In addition, the very low level of daily tin turnover in the LME was a further element in favour of manipulation.

(Cavalli and Cristiano 2012: 65)

In fact, in the 1920s, several "tin pools" were formed to control production and prices and in May 1925, Keynes himself took a share (SE/2/5/95) in a private pool.²⁵

Keynes stayed in this market longer and traded more than in any other commodity, trying to anticipate the ups and downs of prices, with mixed results throughout the whole period of his investment. He was bullish most of the time, mainly buying BOD and call options, and only in a few cases did he hedge his position by buying double options. In the period 1925–26, he associated the purchase of call options with the sale of put options, greatly increasing his exposure. After 1927 he did not successfully gauge prices and thus he incurred great losses, especially in the year 1928.

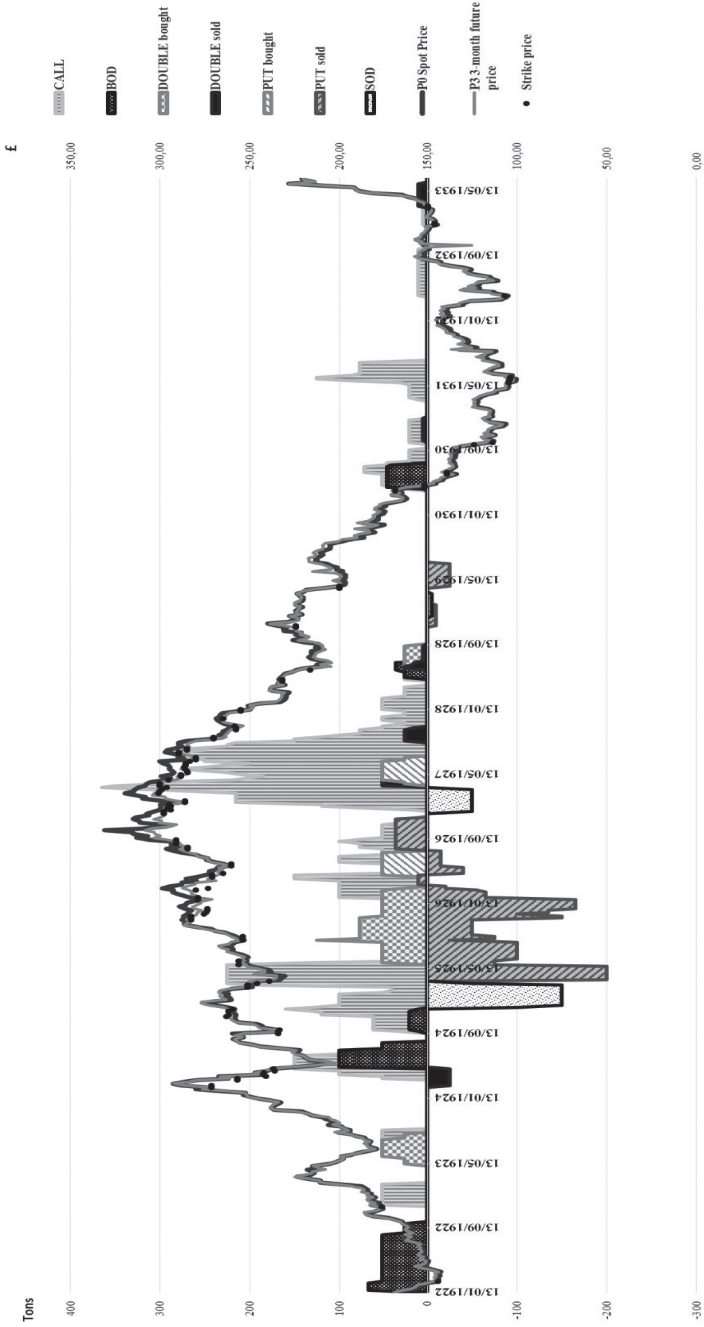
²⁴ In the terminology of Keynes's times, they were stocks of tin actually not available for consumption, because they were 'in transit' or 'afloat' (Keynes 1983: 468).

²⁵ From the correspondence, we learn that Oswald Falk, Rupert Trouton and Jack Budd (son of Cecil) belonged to the private pool. From the ledgers, we can infer that Keynes's participations lasted until October 1925, while the pool was presumably dissolved at the end of that year.

In the tin market, Keynes experimented with all the derivatives available to him at the time and held the highest number of contracts: futures (166), call (72), put (21) BOD (15), double (14), SOD (7) (see Table 14.1). After 1925 he also took delivery of some of his futures and stocked tin in the LME warehouses, thus moving part of his operations onto the spot market.

His strategies with tin options – not unsurprisingly, given the high volatility of prices – were more complex than with the other metals. In this market he experienced the largest combinations of investment strategies. He behaved not only as a buyer of futures, call and double options, but also as buyer of BOD and seller of SOD options. He was also a writer of double options (accompanied by the simultaneous purchase of futures to cover the event that his counterpart would exercise the double as a call, see SE/11/2/24 and TC/4/3/128 and 226) and a writer of put options (SE/11/2/38, 41 and 47), respectively, in February–May 1924 and in September 1925 to December 1926 (these positions are accordingly represented in the negative quadrants in Figure 14.2). During May–October 1925, while he was in the tin pool, he was persistently long in calls and futures, a bull position strengthened by the sale of put options in September–December 1925.

Figure 14.2. Tin: Keynes's weekly position in option and prices, January 1922 to June 1933



This move brought him some profits because the prices went up and options were not exercised by the buyer. In the period September 1925 to March 1926, Keynes was a writer of 17 put options, 15 of which were let expire by his counterpart. A careful analysis of these operations shows an impressive ability to guess the direction in price movements and to get the timing right. It is tempting to infer that his hunches seem to have been sparked by some “insider information” to which he was privy as a member of the tin pool.

On a few occasions, Keynes followed a strategy of outright positions in put, as for example in the case of the put he bought on the 21 November 1928 for 10 tons at a strike price of £230, with expiration on 21 February 1929, which he exercised at a profit on the 19 February, when the market price came to £224.5s (SE/11/2/54).

In other cases he hedged his long positions on futures with double options, exactly as he did on the copper option market (SE/11/2/21).

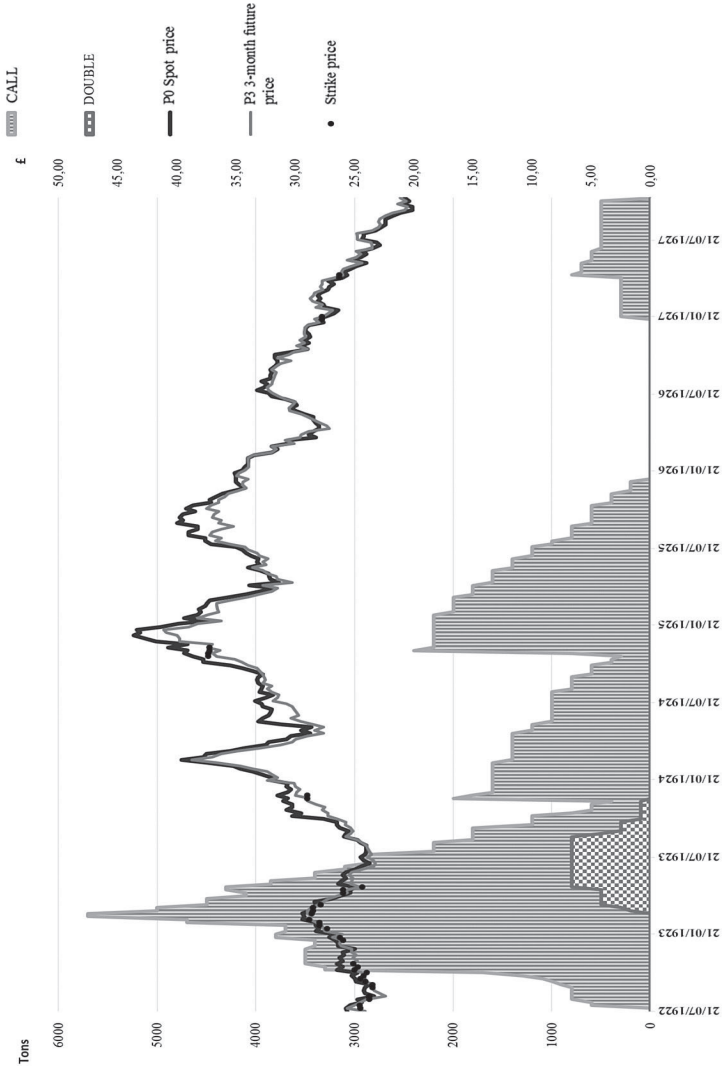
However the pattern of high volatility that was typical of tin prices, while providing scope for speculative activity, exposed him to the risk of heavy losses when the buying and selling timing did not match the price swings. Unfortunately, this is exactly what happened. So Keynes’s activity in the tin options was unsuccessful: he bore substantial losses throughout the whole period except for a few occasions in 1922 and 1926.

4.3. Lead

Keynes entered the lead option market in July 1922, after six months of holding a small long position in futures. He suspended his option dealings in November 1925 to resume them only a few years later, in January 1927 (see Figure 14.3). In October 1927 he gave up dealing in options and carried on with long positions in futures, which he closed in August 1928 (SE/11/2/50). Options were the contracts most traded by Keynes in terms of the number of contracts (64) but, contrary to his practice with copper and tin, in the lead market he traded only two types of options: for almost all the cases he bought calls and only in four cases (all in spring 1923) did he take up doubles (see Table 14.1).

Lead was a commodity, Keynes reckoned in the “Memorandum on Stocks of Staple Commodities”, of which “there were large post-war accumulations, and stocks of which have been continuously diminishing from abnormal level” (Keynes 1983: 268) and for which “output could not be expected to increase to meet the increase in demand, due to the scarcity of new sources” (ibid.: 291). Although prices had been steadily decreasing in 1921, Keynes entered the market with clear bullish expectations; until the

Figure 14.3. Lead: Keynes's weekly position in options and prices, July 1922 to October 1927



end of 1925 he believed that “stocks were very small”, but in February 1926 he came to the conclusion that “the high prices recently prevailing have called forth increasing production, sufficient to satisfy the high level of consumption” (Keynes 1983: 423).

In April 1922 lead future prices climbed to the £23–24 level and remained there until October 1922. The upward trend continued until January 1925 when they reached £40 and then slowly reverted with a low of £30 in May 1925; thereafter they increased to around £37 until November 1925 (see Figure 14.3). From then onward, the decline in prices was steady, reaching a low of £23 in August 1927. Keynes’s strategy in lead options was 3-fold:

- (i) Long position in futures and calls. This was his strategy in almost all his investment in lead options. We find it in July–August 1922, from November 1922 to March 1923 and continuously from November 1923 to November 1925. This was indeed a highly leveraged set of speculative bets on price increase, which Keynes won when he got the timing right (as was often, but not always, the case). There were several instances in which futures were sold at a loss and options were not exercised.
- (ii) Outright calls positions (mainly in the period August–October 1922 and again in January–September 1927).
- (iii) Hedge of long positions in futures with doubles, exercised as put (only twice in the period September/October 1923).

An example of this strategy is drawn from the ledgers (SE/11/2/19). On 27 March 1923, Keynes opened a long position through a future contract for 200 tons of lead with October delivery (a seven-month future) at a price of £27.17s.6d; on the same day he bought a double option for the same quantity and maturity and with a strike price equal to the future price indicated in the future contract.²⁶ When maturity approached, the lead market price was unfortunately lower than the price at which Keynes had bought his future contract: in fact, on 12 October the spot price was about £26. On 16 October, Keynes exercised the double as a put and made up for the loss on the future contract, incurring a loss only equal to the commissions.²⁷ It is worth noting here that just after the exercise of this option, the price started to increase. If Keynes had waited only 10 days he could have had the chance to close his position on the future contract at a

²⁶ According to *The Times* series, on 23 March 1923 the spot price was £28.

²⁷ Keynes in fact registered in the ledger losses of only £95 and linked the two operations with a curly bracket (as in the similar cases of copper and tin), writing beside the entries “offset” (SE/11/2/19).

profit, since on 26 October the market price reached about £30. The double could also have been exercised as a call.

Keynes gained huge profits in the first part of 1923, due to the options he had bought at the end of the previous year; however in the second part of the year he let almost all his call options expire, incurring substantial losses, especially from October to December (SE/11/2/17). Between June and December almost threequarters of all the options traded expired and some of those he exercised brought him further losses.

Although a great number of the options were not exercised and Keynes did not seem particularly successful in predicting the trend of prices, his investments in the lead option market turned out to be successful overall, thanks to two fortunate periods of huge profits during 1923–24 and 1924–25.

4.4. Spelter

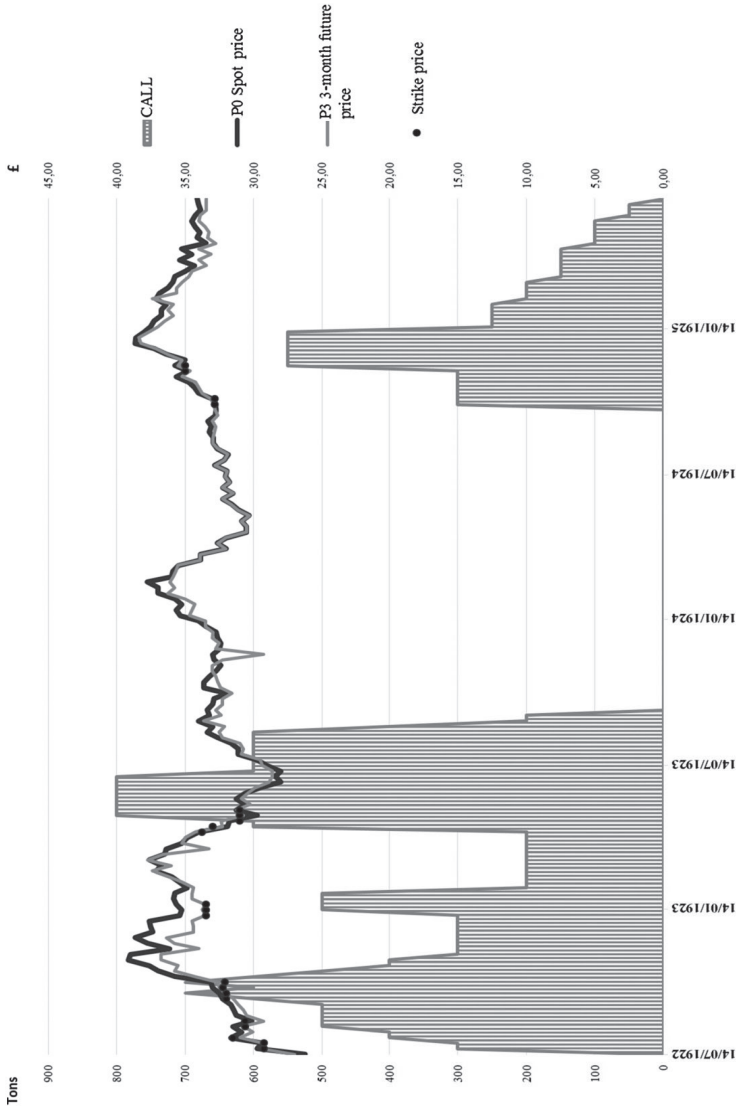
Keynes entered the spelter option market in July 1922, with no previous position in futures, and withdrew in November 1923, to return to option dealing between October 1924 and June 1925 (see Figure 14.4).

In the spelter option market, Keynes traded almost exclusively through calls (see Table 14.1).²⁸ Keynes's bullish expectations in the months between mid-1922 and at the beginning of 1923 may have relied on his observation of the sharp reduction in stocks between January and July 1922, which continued also to the early months of 1923 (registered in the 1923 memorandum; see Keynes 1983: 269, 292). In June 1924, Keynes registered that around January 1924, an inversion in the declining trend in stocks had occurred (Keynes 1983: 317, 340), followed, from January 1925 onward (Keynes 1983: 405), by a renewed marked fall in the level of stocks of spelter.

Prices had indeed increased consistently from a level of £25 in March 1922 to a peak of £37 in November, followed by a series of marked upswings and downswings around a trend of increasing prices, which came to a halt in January 1925 when they reached the overall peak of £38, from where they steadily declined to a level of £12 by January 1935.

²⁸ We have evidence of only two double options bought by Keynes in October 1934, for 50 tons each (TC/4/3/52 and TC/4/3/66). These operations represented a hedging strategy because they were associated with the purchase of a future for the same total quantity (100 tons) and maturity (see also SE/11/2/57).

Figure 14.4. Spelter: Keynes's weekly position in options and prices, July 1922 to June 1925



His strategy in this market had a similar pattern to that of his trading in lead. He bought outright calls consecutively from July 1922 to November 1923, when he switched to a long position in outright futures (SE/11/2/23). In October–November 1924 he returned to buy call options and then combined long positions in calls and futures between March and June 1925 (SE/11/2/32 and 35).

Overall, Keynes was successful in his investment in spelter options, reaping gains in all the operations carried out in 1922 and until February 1923 and suffering some losses only in the second half of 1923. Then, in January 1925, he obtained an exceptional profit of more than £1,300, followed by some losses due to options that he did not exercise (SE/11/2/29).

4.5 Rubber and Linseed Oil

Having acquired good experience in metals – and without abandoning his investments in these commodities – in 1923, Keynes extended his use of options also to other commodity markets, albeit on a very modest scale compared with his activity in metals. He started with a series of call options in rubber, bought between the end of May and June 1923 with deliveries from November to March, which in fact he did not exercise (SE/11/2/22). Similarly, in November 1923, Keynes bet on an increase in prices by again buying some call options with April, May and June maturities, but, unfortunately for him, the expected rise did not occur, which is why in these cases, too, Keynes refrained from exercising the options. Observing the general conditions of the rubber market, we learn from Keynes's memoranda that from 1920 to January 1923 there was a constant increase in stocks (the data provided by Keynes refer to the total supply outside plantations) due to quantitative restrictions imposed in the main producing countries (Keynes, 1983, p. 385).²⁹ In June 1923, the positive trend in stock accumulation reversed, which may account for Keynes's bullish expectations regarding prices. Unfortunately for Keynes, this reduction in stocks was not associated with an increase in prices. In the following months and until 1925, stocks continued to dwindle. Keynes insisted on buying call options also in November 1923 with April/June maturities, but the expected increase in prices did not occur and he let the options expire. The persistence of Keynes's long position in rubber throughout the whole period reflects his perception of the trend increase in

²⁹ Reference is made to the Stevenson Rubber Restriction Scheme, organised in 1922 and covering some of the most important producing countries, such as Ceylon and Malaya.

world demand, overlooking the parallel growth in world production.³⁰ Subsequent to these unsuccessful investments in rubber options, he continued his investment activity in the rubber market in the following years, especially from 1926 to 1928 (SE/11/2/46 and 52), abandoning option trading and assuming long positions in futures for large quantities.³¹

In February 1924, Keynes embarked upon speculation in linseed oil options (SE/11/2/25). In this case Keynes appears to have had a bearish view of the market, which led him to buy put options. This expectation proved erroneous and he did not exercise the options. In October 1924 he decided to change his strategy, buying double options (until February 1925), which may testify to a marked unpredictability in the price trends.³² In some cases these options were exercised as put to offset his long positions in futures (SE/11/2/25).

Overall, the results of his investments in options on the rubber and linseed oil markets were disappointing, which may explain why Keynes abandoned the use of options in these two commodities while continuing to invest through futures contracts.

4.6. Keynes's Forecasting Ability and Performance

We can now attempt to evaluate Keynes's ability as a speculator by first looking at the balance of profit and losses in his trading of metal options. He had a loss of £6,645 in tin, a gain of £772 in copper, a gain of £2,896 in

³⁰ In the 1920s, the increasing use of rubber in many products that were becoming of widespread consumption (such as shoes or hoses) together with the initial development of the automobile industry (and consequently increase in demand for car tyres) could have justified Keynes's expectations of an increase in prices due to growing demand. What seems to have happened, instead, was that the "rubber boom" induced many countries (especially in East Asia) to enter the market, creating new plantations and so increasing world production.

³¹ His investment choices made in those years proved ill-founded because prices did not increase. At the beginning of 1928, his losses on rubber futures contracts amounted to about £15,000, accounting for a substantial part of his total losses in that unfortunate year (Moggridge 1983). Keynes returned to investments in the rubber market during the 1930s, but again only through futures contracts.

³² Surveying the price movements of linseed oil in New York, we observe a marked volatility in prices, especially between 1923 and 1925 (see <http://www.nber.org/databases/macrohistory/rectdata/04/m04081a.dat>).

spelter and a gain of £4,815 in lead, for a total net profit of £1,838 (see Table 14.2).³³

These data³⁴ reveal that Keynes's investment in metal options was overall only slightly successful: in general he showed a good capacity to predict market trends, but the burden of commissions and costs reduced net profits to below what could be expected.

A rough indicator of Keynes's ability to predict market trends in each metal market is the exercise ratio, i.e. the percentage of the options exercised out of the options bought. In computing this ratio we have excluded the double options because of the intrinsic characteristic of this type of option, which is always exercised no matter what is the direction of price movements. Thus in the case of the doubles, the *exercise* is not a good indicator of any particular capacity to predict market trends while it remains, obviously, true that the *purchase* of this type of options could reveal in any case something about Keynes's predictions, i.e. his expectations of a high volatility in prices.

Table 14.2. Keynes's investment in metal options (in £)

	Tin	Copper	Spelter	Lead	Total
1. Total investment in options	21,350	10,652	2,661	13,623	48,286
2. Gross profit	16,280	13,216	6,248	21,083	56,827
3. Commissions	1,575	1,792	691	2,645	6,703
4. Net profit	-6,645	772	2,896	4,815	1,838
5. ROI ^a (%)	-31	7	108	35	3

^a ROI (5) for each metal is computed as the ratio of total net profits (4) (given by the total gross profits (2) less the sum of the cost of the options (1) and the commissions (3)) to the total investment in options (given by the cost of all the options contracts bought in the investment period).

³³ To give an idea of the magnitude of these values, it is worth recalling that in 1921–24, Keynes's total annual income amounted on average to about £5,000 (Moggridge 1983: Table 1).

³⁴ Since the BODs and SODs played a relatively small part in Keynes's option strategies (copper BODs were five out of 53 operations and only four of them were exercised, i.e. 7%; tin BODs and SODs were 22 out of 129 operations and only eight were exercised, i.e. 6%) and since we do not take futures into consideration, we did not include these contracts in our calculations.

These ratios come to about 65% for copper, 62% for tin, 55% for lead and 70% for spelter,³⁵ for an average value for the whole metal option trading of about 63%, which was quite high. Keynes showed, on average, a good capacity to predict market prices in all four markets. It is worth noting that in the case of lead, he obtained the highest net absolute profits although he showed a lower predictive capacity than in other markets. This means that in the case of lead he made huge gains because he was able to anticipate prices in a couple of very favourable circumstances, not because of an ability to forecast prices over the whole period. The difference between the strike price and the market price was what really mattered, since transaction costs (commissions + premiums) were very high.

A better picture of Keynes's performance in metal options is provided by computing the return on investment (ROI)³⁶ in option dealings in each market. We have calculated it, as a rough indicator, simply as the ratio of

³⁵ There were two call options in lead bought on 13 and 20 November 1924 (SE/11/2/29 and 32) and one in spelter bought on 26 April 1923 (SE/2/11/21), which Keynes exercised even though they were "out of the money". We have excluded them from the numerator of the exercise ratio since the exercise in these particular cases does not indicate Keynes's capacity to anticipate price. It remains to be explained why Keynes exercised these options if they were "out of the money". It has been noted that "Out of the money call options, with the strike price more than the current market price, cost less than the underlying asset, meaning that they provide leverage exposure to the upside (relatively to the equivalent expenditure on the asset), and the maximum loss is the upfront payment" (Mixon 2011: 20). This explanation tallies well with the lead and spelter call options, since there was a sufficient interval between the exercise of the option and the liquidation of the underlying future contract, which could be done on any day of the month of the expiration of the option (see, e.g., SE/11/2/74–75 and SE/11/2/103–104) – unlike copper and tin call options, for which the liquidation of the underlying future contract had to be done practically on the very day of expiration of the option (see, e.g., SE/2/110–111 and SE/11/2/83–84).

³⁶ What the "right" way should be to compute this indicator and specifically what should be considered as "the capital invested" is a matter of dispute in the literature. In our computation we have followed the view that, in the case of options, the capital invested is represented by the cost of the option. In fact, in this analysis of Keynes's dealings in options, the capital he had effectively advanced when he bought the option (and which is registered by him in his ledgers) is given by the total cost of the option, i.e. the premium times the quantity involved in the underlying future contract. Unfortunately, in the cases of BODs and SODs, Keynes did not clearly register in the ledgers the premium (the margin paid over or below the future price) and this makes it difficult to decide how to compute the "capital invested". For these reasons we have excluded, also from computation of the ROI, these peculiar contracts.

the total net profits/losses to the total capital invested³⁷ over the whole investment period in each market (see Table 14.2).

Comparison of these ratios provides better understanding of Keynes's performance in his option dealings in the four metal markets. In fact, if we view profits and losses in absolute terms, Keynes achieved his best performance in the lead market, as we have seen. But with regard to the ROI, we observe that the market he had most success in was spelter. In fact Keynes invested in spelter only 5% of the total capital invested in metal options, amounting to £48,286, but he gained net profits of almost £2,900, corresponding to about 35% of his total net profits.

If we compare the ROI in the two markets in which Keynes registered higher net profits, spelter and lead (see Table 14.2), the big difference is due not only to the better capacity to predict price movements in the spelter market (testified by a higher exercise ratio), but also to the fact that he invested in spelter an amount which was roughly 20% of that invested in lead, giving spelter profits amounting to 60% of the profits obtained in lead. As far as tin and copper are concerned, the absolute net profits/losses and the ROI value confirm that the investment in tin options was decidedly unsuccessful and only just successful in copper options.

Finally, if we take as a benchmark the annual average yield of consols, which remained around 4.5% in the 1920s and dropped to an average of 3.5% in the 1930s (see Homer and Sylla 1991: 447, Table 59), we can conclude that, comparing it with the annual ROI in each metal, Keynes was not a stellar performer in his metal option dealings overall (see Table 14.3), bearing out a similar conclusion reached by Accominotti and Chambers (2014) in their analysis of Keynes's speculation in currencies.³⁸

³⁷ In our computation we have excluded the hedging operations, i.e. the double options bought the same day (or contiguous days) and with the same maturities (or contiguous maturities) of a long position on futures contract. Since our concern here is analysis of Keynes's behaviour in "pure speculation", we excluded those dealings that were undertaken by him only as a means to hedge his positions in futures.

³⁸ "Over the whole period he traded during the 1920s and 1930s, we estimate Keynes achieved a considerably lower average return (5.37%) and Sharpe ratio (0.16) than both carry and momentum. This underperformance was mostly concentrated in the 1920s. In the 1930s he managed to beat the carry trade [the strategy of selling the currency with a relatively low interest rate and using the funds to purchase the currency yielding a higher interest rate] but still unperformed the momentum strategy and was unable to match the returns on UK stocks and bonds" (Accominotti and Chambers 2014: 4).

Table 14.3. Annual ROI on metal options

	Tin	Spelter	Copper	Lead	Yields on 2.5% consols
1922	290.58	308.75	19.49	98.14	4.43
1923	-82.15	-117.57	-32.21	65.61	4.31
1924	-43.60	160.26	3.72	-104.97	4.39
1925	-10.33	-	-	-	4.43
1926	-0.07	-	-	-	4.55
1927	-66.79	-	-	-100.00	4.56
1928	-131.17	-	-	-	4.47
1929	-100.00	-	-	-	4.60
1930	-104.07	-	-	-	4.46
1931	28.26	-	-	-	4.53
1932	-6.82	-	-	-	3.76
1933	-0.95	-	-	-	3.38

Source: Yield data are from Homer and Sylla (1991).

5. Conclusions

We have presented some of the findings of our investigation into Keynes's speculative activity in the option market. Mainly, he was active in metals, notably copper, tin, lead and spelter, with some trading in rubber and linseed oil. Assembling the data and drawing upon the information to be found in his papers, which to the best of our knowledge has not been analysed previously, we were able to present a detailed picture of his dealings in options in the interwar period.

In particular we gathered information on future, spot and strike prices, commission charges, *premium* and gross and net profits for Keynes's dealings; on this evidence we were able to assess his performance and investment strategies.

While we do not claim to provide a complete account of Keynes's commodity dealings, we do offer readers some results.

We introduce a distinction that is not generally adopted in the literature. We calculated the gross and net revenue for each option bought

and the net revenue as a proxy for performance.³⁹ In this respect we found that both his ability to forecast prices and his performance were variable in relation to the different markets and time spans, but we roughly determined a total ROI⁴⁰ of 3% and a net profit of £1,838 (see Table 14.2) over his 12 years of activity in metal options. This very modest success in commodity option dealings, however, does not seem to have shaken his general faith in the superiority of the investment in commodities over other assets, as testified by the comment quoted in the epigraph, which he made several years later.

From the analysis of his investment activity in options, what general conclusions can be drawn about Keynes as an investor? At least throughout the 1920s, Keynes appeared as an informed trader who took great care in collecting information about the “fundamentals” of the commodities he traded. This was certainly facilitated by his work for the London and Cambridge Economic Service, for which he wrote an annual special memorandum (1923–30), where data on consumption, production and stocks were systematically analysed. At the same time, the frequent strategy of leveraging his long positions with a combination of futures, calls and BODs shows Keynes to have been a risk-loving investor who seldom hedged his exposure in futures⁴¹ and who most of the time was simply long in call options.

We have not considered Keynes’s dealings in options in relation to his portfolio, where futures in commodities had the largest share, while currencies were traded mainly in the early 1920s and shares mainly in the 1930s, but as the chief instrument of his speculative activity. In this respect, no attempt has been made to evaluate the overall performance of Keynes as an investor – which requires further data collection and analysis – but to reconstruct his behaviour and assess the outcome in dealing with a highly risky and leveraged asset.

Keynes basically gave up his dealings in options in the early 1930s and this can be interpreted also as a break in his style of speculation, as indeed is documented in the literature. Chambers and Dimson (2012), analysing

³⁹ “In commodity futures markets a measure of the forecasting ability of speculators is not hard to find, for it is immediately reflected in their profits and losses” (Houthakker 1957: 43).

⁴⁰ It has been computed as the ratio of the total net profits to the total investment in options in the four metal markets.

⁴¹ Only in 15 cases (in a total of 268 options traded) did Keynes hedge his position in futures with options.

his activity as bursar for King's College, evidenced a radical change in Keynes's approach to investment around the same time.⁴²

It is tempting to relate this change in investment behaviour to a change in Keynes's views on speculation (Marcuzzo 2012), paralleling the development of his ideas from the *Treatise* to the *General Theory* (Keynes 1973). Unfortunately, the influence of his practice as a speculator on his theory of speculation is not easy to pin down specifically, although it can certainly be argued in general terms.

We are aware that this paper contributes only a small part to the full picture of Keynes's overall financial investment, but nevertheless we believe that it is a valuable part, since it draws on new archival findings and concerns the most speculative asset available to Keynes at the time. It also shows how in the 1920s, Keynes relied heavily on information relative to each individual market and commodity, weighing up the quality and reliability of that information through calculation of the relevant data, the advice of experts and his own assessment of market conditions and of other participants' opinions. Although his strategy changed in the 1930s and shares became the main component of his portfolio, he still believed in commodities – as testified in the quotation opening this paper – but he gave up the riskier component of this type of investment represented by options.

Perhaps his early belief that superior knowledge conferred the speculator with an advantage over the market gave way to his mature conviction of the impossibility of gauging the “prospective yield” on the basis of the fundamentals and that performance depended upon the successful bet on the “favourable change in the conventional basis of valuation”, as he wrote in the *General Theory* (Keynes 1973: 159). Since the conventional basis is the average market opinion, as described in the “beauty contest” example, the basis of success becomes more uncertain and fragile and boldness necessarily gives way to prudence.

⁴² Also in Foresti and Sanfilippo (2012), who analysed Keynes's investment in the wheat futures markets, a change is shown in Keynes's speculative style occurring around the beginning of the 1930s, when he abandoned a short-term type of investment behaviour (adopted especially in the North American markets), which aimed at anticipating the reversal in market trends, in favour of a long-term investment behaviour characterised by the adoption of a rollover strategy of long positions in futures, mainly on the Liverpool market.

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CHAPTER FIFTEEN

JOHN MAYNARD KEYNES: THE ECONOMIST AS INVESTOR

CARLO CRISTIANO
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1. Introduction

The title of the second volume of Skidelsky's biography, *The Economist as Saviour* (Skidelsky 1992), conveys the idea of Keynes as both a guardian and a defender of capitalism. There are, however, other aspects to Keynes which suggest a different depiction, or at least a different perspective. Such is the case of his activity as investor and speculator, which was a constant concern throughout his life.

Keynes started up as an occasional investor in the stock market when he was very young. After 1919, thanks to the proceeds of the best-selling *The Economic Consequences of the Peace* (CWK II), his dealings grew in magnitude as well as scope. Currency speculation became the main business for a while, leading to a serious loss in 1920, which Keynes had already helped to recover by 1922, thanks to the revenues coming from speculation in commodities (metals and cotton) and some still unsystematic forays into securities. Meanwhile, investment had become his main source of income. The data on income by source reported by Moggridge (1983: 12, Table 4) show that commodity speculation took the lion's share during the 1920s – a pattern that probably began to change when Keynes's second major set-back came in 1928, and then in the wake of the 1929 crash. Even though Keynes went on trading commodities until the closure of these markets in 1939, early in the 1930s he shifted to equities, his main sources of income being capital gains and dividends. Connected to this is Keynes's exposure on the American stock market, which shows up in the 1920s data and then in 1932–1933, before taking on substantial proportions from 1934. Keynes continued to invest until the

time of his death in 1946, building up a conspicuous fortune over a period of about a quarter of a century.

Parallel to his personal investment activities, there was an intense career as an institutional investor. Keynes became director of the National Mutual Life Insurance Company in 1919, and then Chairman in 1921, a post he retained until October 1938. He joined the board of the Provincial Insurance Company in 1923, lessening his involvement in the board only when he joined the Treasury in 1940. Keynes also entered onto the Boards of a group of investment trusts founded by O.T. Falk, a former colleague of Keynes's at the Treasury. He was a director of the Independent Investment Company (1923–1946), the A.D. Investment Trust (1921–1927) and the P.R. Finance Company (1924–1936, Chairman 1932–1936). In addition to these investment companies, there was the Syndicate that Keynes and Falk created for their speculation in foreign exchange, and into which they channelled additional money from friends and relatives (Moggridge 1983: 1, 3–5, 30–35). In 1921, Keynes became Second Bursar of King's College, Cambridge, and then First Bursar in 1924, a post he retained until the end of his life.

Keynes the investor has not been investigated as much as other aspects of his life and work, especially because of the nature of the sources; in his papers there are many files of ledgers, correspondence with brokers and consultants, and accounts which are not always easy to decipher and make use of. Moreover, reconstructing the workings of the financial markets in the interwar period would require a full knowledge of data (asset prices, derivatives, commissions, institutional arrangements) which are not always available.

Notwithstanding these difficulties, Keynes the investor has recently attracted the attention of several scholars and quite a few articles have come out in the last six years (Fantacci et al. 2010; 2012; Holder and Kent 2011; Boyle et al. 2012; Marcuzzo 2012; Chambers and Dimson 2013; 2015; Wasik 2013; Woods 2013; Cristiano and Naldi 2014; Chambers et al. 2015a; 2015b; Accominotti and Chambers 2016; Chambers and Kabiri 2016; Marcuzzo and Sanfilippo 2016; Cristiano et al. 2017; Foresti and Sanfilippo 2017; Marcuzzo and Rosselli 2018), adding to the hitherto sparse literature on the subject (Davenport 1975; Chua and Woodward 1983a; 1983b; Pierce 1993; Mini 1995), besides of course the editorial notes in Vol XII of Keynes's *Collected Writings* (Moggridge 1983), which still remain the main and most authoritative reference.

A newer and more reliable description of Keynes's dealings has thus begun to emerge, assessing his performance as an investor as superior but not as stellar as had previously been believed.

Granted that Keynes fared quite well in shares, overall evaluation of Keynes's performance is still lacking. We have partial results, but no complete and detailed analysis has been made of his investments as a whole.

Closer examination of Keynes's dealings in stocks for King's College has shown that in the earlier period of his bursarship Keynes came short of the market performance, and that he did not significantly outperform the market until he changed his strategy in the early 1930s (Chambers and Dimson 2013). Over the whole period, the annual performance of the funds over which Keynes had complete control amounted to +16.0 per cent, against +10.5 per cent of the market index (Chambers and Dimson 2013; 2015).

As far as Keynes's dealings in currencies are concerned, Accominotti and Chambers (2016) conclude that Keynes's discretionary and fundamentals-based strategy on the whole failed to match the returns to rules-based strategies. Their test included carry trade (which borrows in low-interest-rate currencies to invest in high-interest-rate currencies), momentum (which consists in being long on past winners and short on past losers), and value (in which the investor is long on currencies that are undervalued in terms of purchasing power parity and short on overvalued currencies). Keynes only managed to beat the carry trade, but not the momentum strategy, during the 1930s.

On commodity futures and options, Keynes achieved mixed results. During the 1920s, he made some profits in American Cotton (Cristiano and Naldi 2014) and Tin futures (Marcuzzo and Rosselli 2018), but he also incurred severe losses in rubber (CWK XII: 15), while options gained Keynes a total return on investment of 3 per cent over 12 years of activity. Taking the average yield of Consols as a benchmark, Marcuzzo and Sanfilippo (2016) have shown that this was no great performance: Consols averaged 4.5 per cent during the 1920s and 3.5 per cent in the 1930s.

Moreover, two other aspects of his activity as speculator have undergone scrutiny, namely his investment philosophy and its relationship with his economic theory. While the former has been thoroughly analysed, especially by Wasik (2013) and Woods (2013), we believe there is still more to be done on the latter.

Vol. XII of the *Collected Writings* contains a long series of public speeches and private correspondence in which Keynes promoted *ex ante*, or justified *ex post*, his investment strategy. During the 1930s in particular, the latter case became predominant. As the stock-market portfolios of the National Mutual and the Provincial frequently began to incur serious losses, Keynes had to justify his choices. This inevitably led him to

produce a considerable flow of letters, memoranda and post mortems on investments, which Moggridge edited in 1983. Together with the more colloquial and relaxed post mortems on King's accounts, also included in vol. XII, these papers remain the main source for most of the contributions on Keynes's investment philosophy (Pierce 1993; Mini 1995; Holder and Kent 2011; Woods 2013).

In this paper we wish to contribute to this growing literature by filling some of the gaps, especially in relation to Keynes's investment philosophy and economic theory. To do so we undertake a more comprehensive review of the available evidence, drawing on some unpublished sources which have not as yet been fully exploited.

2. Keynes's Pronouncements on Institutional and Personal Investment Strategies

It is a reasonable assumption that Keynes's approach to his private investments often reflected the choices he made also as an institutional investor. There are, however, limits to the extent to which we can deduce Keynes's personal investment strategy from his institutional investments. One reason is the different time horizon of Keynes the individual investor vis-à-vis the institutional manager. Another is that, King's probably being an exception, Keynes could not be as autonomous in the management of others' funds as he was in his personal portfolio. Finally, there are two classes of investments that Keynes practised, namely commodities and currencies, which were outside the scope of at least some of his institutional dealings, although, as the correspondence with Kahn shows, not in the case of King's as far as commodities were concerned. Currencies and commodities remained outside the portfolios of the National Mutual and the Provincial, however. Nevertheless, the papers and correspondence of Keynes as an institutional investor remain a source of first-hand information.

An early experiment emerging from these papers is to be seen in the "credit cycle" strategy elaborated in collaboration with Falk and explained in the prospectus of the Independent Investment Company of January 1924 (CWK XII: 33). This strategy started from the presupposition that

fluctuations in the relative values of [...] securities generally and of ordinary shares are all affected by a periodic credit cycle. Changes in the short-period rate of interest affect the value of long-dated securities to a greater degree than should strictly be the case, with the result that considerable profits can be made by changing from one class to another at the appropriate phases of the credit cycle. Similar periodic changes also

take place in the relative values of money on the one hand and of goods and real property on the other, which are reflected in the relative values of bonds and shares [...] so that here also the same principle of changing from one class to another at appropriate times can be applied.

(CWK XII: 33)¹

In the same year of 1924, Keynes was popularizing a new approach to institutional investors called “active investment policy”. In an article on “Investment policy for insurance companies” (CWK XII: 240–244), published in May in *The Nation and Athenaeum*, he argued that “[t]he wise investor must now doubt all things, and constantly revise his ideas in accordance with changing events in the political world”. Subsequently, the annual speeches as President of the National Mutual became the main vehicle for these ideas. The 1928 speech contains a clear definition of active investment policy, borrowed from a report of the Carnegie Corporation. “The funds of a great endowment can be kept intact only by a systematic revision month by month of all securities of the endowment and by a continuous process of sale and exchange as circumstances may affect the financial soundness of this or that security” (CWK XII, p. 155).

While this “active” policy was put into practice, Keynes grew firmly convinced that it was necessary to reform the portfolios of the companies in which he was involved. The quota of fixed interest securities had to be reduced, and that of equities enlarged. Speaking as President of the National Mutual in January 1928, encouraged by the good results he was achieving, Keynes proudly presented the new approach: “We have been

¹ Much later, Keynes spoke somewhat contemptuously of this strategy. In a letter to Kahn of 5 May 1938 he wrote that he had “seen it tried by five different parties [...] over a period of nearly twenty years” without “a single case of success” (CWK XII: 100). However, which these “five parties” may be is hard to tell, nor is it clear for how long and how much this strategy was actually followed by Keynes himself. Moreover, as we will see, the cycle investment left some traces also in Keynes’s dealings during the 1930s. Nicholas Davenport, who became a member of the National Mutual board in 1932, later recalled: “In the money and bond markets Keynes was able to apply his professional knowledge as an economist and monetary expert. The National Mutual would place its money on ‘the street’ on a day-to-day basis when some crisis had driven the money rates sharply upward. Then it would move into the government bonds market when it foresaw money rates turning downwards. Finally, it would gather in its capital profits when it considered the gilt edged market had reached its peak [...]. Keynes [...] was something to persuade the actuaries of the life offices to keep equities in their portfolios as a fixed and permanent proportion of their assets and to contemplate ‘switching’ not only when management problems arose but when economic trends pointed to a ‘bear’ market” (Davenport 1975: 226–27).

pioneers – he said – in the practice of employing a substantial part of our funds in ordinary shares” (CWK XII: 155). He explained that “the centre of gravity of business, and therefore of investment, is not where it was [before the war]”, and that sticking to the orthodox and restricted range of fixed interest securities would mean “living in a backwater”. Besides the traditional fields of railways and public utilities, usually within the empire, new opportunities were emerging. He mentioned the oil business, the tea, coffee and rubber industries, and “the ordinary shares of companies overseas, particularly in the United States” (CWK XII: 157). In round figures, there were “250 companies with a total ordinary share market capitalization of about £1,500,000,000”, which represented, in Keynes’s view, “the live large-scale business and investment world of today” (ibid.).

There is no evidence that the crash of 1929 changed Keynes’s opinion that investing in equities was the right policy, but it certainly made it much more difficult to make it palatable to the Boards of the National Mutual and the Provincial. From 1930 onwards, the National Mutual speeches showed the need to defend, rather than the will to promote, equity investment. The same happened with the Provincial, as the sample of Keynes’s correspondence with F.C. Scott reproduced in CWK XII clearly shows.

The only exception is the management of the funds of King’s College.

Throughout a period of about 25 years as Bursar, Keynes enjoyed a privileged position that was largely denied to him as member, or even chairman, of other Boards. In practice, he was given *carte blanche* in the administration of a considerable amount of money over an indefinite period. This gave him the opportunity to pursue the strategy of investment that best reflected his opinions. While the traditional investment of King’s, as well as other colleges, was mainly in real estate and gilt-edged securities, Keynes created and managed for his college a strong position in equities, a policy he tried to maintain also after 1929. Incidentally, the same strategy is still of interest today as a pioneer example of what became customary in College finance only in the second half of the last century (Chambers and Dimson 2015). But in the context of the post-1929 slump, the most salient aspect of Keynes’s stock-market strategy was his resolution to avoid large liquidation of shares during a period of a prolonged and dramatic fall in market prices. This is evident in the administration of the King’s College funds – Chambers and Dimson place great emphasis on this point – as well as in National Mutual speeches and the published correspondence with other Board members during the 1930s.

However, this trading behaviour was probably the result of Keynes’s rethinking at an earlier stage. The earliest evidence of Keynes’s preference

for equities is the review of Smith (1925), published in May 1925 (now in CWK XII: 247–52). Here Keynes argued that investing in equities was investing in real values instead of money values, and moreover in a world in which money depreciation was supposed to be the most predictable outcome. Another reason Keynes insisted on was that well-managed firms do not usually distribute all their profits to shareholders. Rather, they prefer to reinvest this money into business. “Thus *there is an element of compound interest* operating in favour of a sound industrial investment” (CWK XII: 250, emphasis in the original). Chambers et al. (2015a; 2015b) have shown how, as time went by, the selection of the most “sound industrial investments”, the ones with the best long-term outlook in spite of their low current market evaluation, became Keynes’s particular hobby in the administration of King’s. This entailed that he put relatively large sums of money into relatively few assets, thus betting on his ability to pick out the most undervalued assets while eschewing diversification. Accordingly, the investment policy of Keynes as a mature investor has been described as rather idiosyncratic, and therefore scarcely compatible with collective management.

Turning, now, to his personal investment, at an earlier stage Keynes’s personal investments had, as we have seen, been largely in commodities and currencies.

In these markets, the kind of “cycle investment strategy” that left traces in Keynes’s papers around 1924 was a natural approach. It has been observed (Accominotti and Chambers 2016: 360–61) that Keynes’s exchange speculation was based on a “discretionary” analysis of “macro-economic fundamentals as expected changes in official interest rates, the level of European reparations, international trade and capital flows, and the inflation outlook when making his currency forecasts”. Moreover, something similar has emerged upon closer examination of Keynes’s dealings in commodities. There is evidence that Keynes collected detailed information about all the commodities he traded, and that, at least throughout the 1920s, he tried to predict the price trend of each commodity in the context of his broad outlook on the trade cycle. It is even possible that their experience in these markets had some influence on Keynes and Falk when they drafted the Independent prospectus in January 1924, and that they were just trying to extend their experience in commodities and foreign exchange to the bond and share markets. In any case, that Keynes could invest on the basis of his predictions about the cycle looks like a natural spin-off of his economic theorizing. As he wrote in the *Tract on Monetary Reform*, “the price level is not mysterious, but is

governed by a few, definite, analysable influences” (CWK IV: 68), which implies that it is at least to some extent predictable.

The *Tract* was published in 1924. The ensuing years were spent by Keynes in the long preparation of *A Treatise on Money* (1930), which presents a far more detailed theory of the credit cycle. Even more than the *Tract*, the *Treatise* suggests that profitable investments could be based on advanced theoretical knowledge. On the one hand, the basic ideas are simple, which is consistent with the view of cycles as predictable phenomena. Keynes identified the level of investment as the main drive of fluctuations and the level of the rate of interest as the main determinant of investment. Following Wicksell, a market rate of interest below the natural rate of interest will cause a rise of investments and therefore an upward trend of the economy. The opposite happens when the market rate is above the natural rate. On the other hand, as noticed by Moggridge (1992: 486), “Keynes added useful complications at every turn”, thus making the application of the theory difficult enough to restrict the number of investors who could actually exploit it to their advantage. Keynes’s negative comments on cycle trading as put forth in the above-mentioned letter to Kahn of 1938 (see footnote 1) suggest that difficulty of application eventually prevailed over the relative simplicity of the logic underpinning the theory.

Moreover, Accominotti and Chambers (2014) note that Keynes also “attempted to exploit information gleaned during his meetings with diplomats, bankers, and stakeholders involved in important currency discussions”, which has more to do with the exploitation of specific information advantages than with some superior ability in macroeconomic analysis and prediction.

Turning to commodities, we find a similar picture. In his tin dealings, Keynes attempted to exploit his personal connections in the City (Cavalli and Cristiano 2012; Marcuzzo and Rosselli 2018). Moreover, the significant investment in tin shares during the same period in which Keynes accumulated a considerable open interest in this commodity probably depended on the same information. Again, Keynes motivated his large investments in South African gold-mining shares with his personal exchanges with the manager of a top firm in that business (Henry Strakosch; see Keynes’s letter to Scott of 15 August 1934 in CWK XII: 55–57).

As Keynes grew older and his network of personal contacts widened, this kind of strategy became more practicable. In a world devoid of any serious rule on insider trading, Keynes had no need to hide the fact that he had influential friends in the City. In fact, as so much of the

correspondence in the Keynes Papers reveals, in most of the cases this kind of information had nothing to do with inside trading. Rather, Keynes widened his relationship with business houses and professional investors, with whom he could profitably exchange information as well as opinions on a wider range of specific investments.

Along with the “humbling *déjà vu* of having nearly lost two fortunes” upon which Wasik (2013: 84) places much more emphasis, this could have contributed to making the abandonment of cycle trading quite a natural development, in Keynes’s institutional investments as well as in his personal dealings. However, the unpublished material, mainly correspondence, which Keynes held with City people, brokers and friends, has not been fully explored.

3. Keynes’s Main Advisors

According to a recent study, the network of his “personal contacts from Keynes’s time at Eton College, Cambridge University, the Treasury during World War I, and from public life consisted of 7,632 people” (Eldridge 2012, quoted in Chambers and Dimson 2013: 225).

Among these myriad contacts, four names stand out – Oswald T. Falk, Rupert Trouton, Walter S. Case and Richard F. Kahn – while there is a lesser-known one that probably deserves to be added, namely Francis C. Scott.

Oswald Toynbee “Foxy” Falk is the man with whom Keynes started up in business on a larger scale. Friends since their days at the Treasury, they cooperated in the creation of a network of financial endeavours in time of peace. After the First World War, Falk became a partner in the stockbroker firm Buckmaster & Moore, through which Keynes would manage part of his dealings, and preceded Keynes on the Board of the National Mutual. Then, as we have already seen, the two men became cofounders of the Independent, the P.R. Finance Company, the A.D. Investment Trust and the Syndicate. In the mid 1920s they shared the same enthusiasm for “cycle investment”, the idea being that it was possible to make money by predicting economic trends, buying assets when prices were rising and selling them at the beginning of the downturn. The end of their collaboration, if not of their friendship, has recently been attributed to the failure of this strategy and the consequent crisis in which most of their joint endeavours fell with the 1929 crash (Wasik 2013: 70). Another interpretation also gives prominence to their opposed views as to the industrial future of England, and therefore on the advantageousness of investing in the UK market rather than in Wall Street (Millow 2012: 403).

A key episode occurred when Falk wrote a letter to *The Times* newspaper in 1930, urging British investors to fly to the US market as there was no future in London, and Keynes replied to him in turn with a letter to *The Times*. Keynes certainly did so for patriotic reasons, and possibly in consideration of his public standing. Whether he actually believed that Falk was wrong is another matter. On the one hand, in the ensuing years he began to invest in Wall Street on a larger scale (Chambers and Kabiri 2016; Cristiano et al. 2017). On the other, it is also true that he did not abandon the British stock market.

Rupert Trouton worked with Keynes for the Government during the First World War, was his student at Cambridge, and had a lot of dealings with him when he was at Buckmaster & Moore and Laurence, Keen & Gardner, which were King's main broker firms. It was Trouton who, in 1921, introduced Keynes to metal options (Marcuzzo and Sanfilippo 2016). He was a cofounder with Keynes and Falk of the AD Investment Trust and the P.R. Finance Company, where collaboration between Keynes and Trouton was very close. Trouton was able to reverse the fortunes of the company after the bad years 1928–1932, and liquidation of the company in 1934 brought profit to the shareholders (Basberg 2015). When Trouton set up his own company, Hector Whaling, in 1928, Keynes remained invested in it, both for himself and for the College throughout its ups and downs to the very end. Trouton, like Kahn, was an economist trained by Keynes at King's and their discussions over investment policy must surely have had that particular slant which was possibly lacking in other relationships.

Walter Summerhayes Case was an “American investment banker. Founder, 1916, president and director of Case, Pomeroy & Co., Inc., a private New York investment company with a specialised research organization” (Skidelsky 1992: 690). Since the early 1930s, Case (and his business house) had become Keynes's privileged source of professional analysis and information on specific investments and classes of investments (at least for the US market). This lasted until October 1937, when Case committed suicide. As Keynes put it to Kahn, “[i]t was nothing to do with finance (he had been mainly bearish, particularly in commodities, and was largely out of markets); and I think it was probably due to a recurrence of health trouble which he confided to [Lewis]² (and few others knew I think) [...], but he thought that he had completely recovered” (Keynes to Kahn, 7 October 1937, in Richard Kahn Papers, King's College, RFK/13/57/252-3).

² Probably Sir Alfred Edward Lewis, director of the National Provincial Bank and member of the Economic Advisory Council (Moggridge 1992: 888).

On 22 December 1937, *The Times* published an obituary of Case by Keynes, now reproduced in the *Essays in Biography* (CWK X: 326–327). Keynes emphasized Case’s view of “the purely financial and Stock Exchange side of his business” as a means to the end of “the active development of the world’s resources”, his “fanatical enthusiasm for the application of science to business affairs”, and the “lavish[ness] in his expenditure on obtaining the best possible assistance and advice” (ibid.: 326). Unfortunately, Keynes also had to remark that Case “never wrote a letter or put a pen to paper” and that “he was addicted to the long-distance telephone even beyond ordinary American usage” (ibid.: 326). Despite Keynes’s dislike for telephone conversation,³ this did not prevent Case from becoming “The American Financier with whom I was most intimate and on whose advice I most relied” (KP BM/3/157),⁴ as Keynes wrote to Francis C. Scott on 25 April 1939. A few weeks before Case’s death, Keynes reported to Kahn that “[i]n light of his [Case’s] opinion”, he had just ordered “for myself and the College” “some more” of “Homestakes”.⁵ The same letter includes some examples of the kind of information that Keynes received from his friend⁶ and the use he made of it:

U. S. Smelting.⁷ He remains of the same opinion, though he is annoyed that apparently there is not as yet any material increase in the output of lead. The stickiness of the price is due, he says, to selling by a large estate, which has to realise the money, and puts stock on the market whenever the price crosses 90.

[...] United Gas and Electric Power and Light. He had no information about the arrangements for financing, but he is confident that they are not yet at an end of their important oilfield discoveries. They have a major field in the Rodessa and a minor field in the Sligo, but they will be extremely unlucky if they do not find at least one more major field, and they might do better still. I enclose a cutting from the *Financial News*, in case you have not seen it. Generally speaking he was just as keen on Utilities as we are.

(Keynes to Kahn, August 1937, in RFK/13/57/213–6)

³ See J.M. Keynes, “The nuisance of a telephone. To the editor of the *New Statesman*, 23 December 1922”, in CWK XVIII: 100–101.

⁴ Permission to publish from Keynes Papers, King’s College Library, Cambridge, UK is gratefully acknowledged.

⁵ Homestake Mining Company, owner of a gold mine in Dakota, was listed on the New York Stock Exchange.

⁶ On Keynes’s investment in Wall Street, see Cristiano et al. (2017).

⁷ United States Smelting Refining & Mining Co.

Richard Kahn was, as we know, Keynes's "favourite pupil", a companion travelling with him on the road towards *The General Theory*, and a friend and collaborator of Keynes's in several academic, personal and financial matters; in his capacity as Second Bursar of King's and Director of the Tilton Company, he assisted Keynes in several investment decisions and shared with him assessment of market conditions, upon which they acted both for their own portfolio and for the College. So much is testified by the correspondence between the two, consisting of 611 letters, only 68 of which were published in the CWK (Marcuzzo 2005). Almost half of the surviving letters are from 1937 and 1938, as from the time when Keynes had fallen seriously ill in the Spring of 1937 and for months all financial and academic matters were handed over to Kahn (see Fantacci et al. 2010).

What these letters tell us is that on each issue they exchanged detailed information, comparing their respective evaluations and assessments, on commodities, American and British shares, bonds and currencies. Keynes taught Kahn – who was in any case by nature so inclined – to keep updated with detailed knowledge of every aspect of the matter in hand. On the other hand, he was also giving Kahn tips based on his wisdom as investor, as the following excerpts illustrate:

[A]s you are discovering, [dealing in commodities] is a business which needs hard work; and it does not turn out right over a period of years unless one attends to the details which, cumulatively, add up to quite a lot. But it is a pure game and should not use time available for serious tasks.

(Keynes to Kahn, 14 July 1937, RFK/13/57/193–4)

For several years I have always felt during a recession that it was worth hanging on, and, provided one's cover position was all right, all one had to do was to wait; so that if I felt the cover position was quite safe, I didn't bother. But today I don't feel like that. I don't want to have a big loan, even though the cover position is perfectly good. I've not got to the point of being a bear, but I am much more disinclined to be a bull on borrowed money.

(Keynes to Kahn, 2 September 1937, RFK/13/57/231–2, reproduced in CWK XII: 24–25)

The correspondence with Francis Clayton Scott is also very revealing in similar respects. Scott was born in 1881 and educated at Bedales and Oriel College, Oxford (Moggridge 1992: 902). In his capacity as President of the Provincial Insurance Company, he was in constant touch with Keynes. The sample of this correspondence that is reproduced in vol. XII of the CWK suggests that the two men disagreed on investment policy,

Scott being more sensitive than Keynes to short-period fluctuations of asset prices.

However, the relationship with Keynes was much more friendly, and their correspondence more constructive, than the published material would suggest. Part of this correspondence will be considered in the next section, together with other evidence – mainly unpublished, drawn from the Keynes Papers – that can add something to our understanding of the developments in Keynes's thinking.

4. Developments and Changes in Keynes's Investment Philosophy Reconsidered

There is general agreement in the recent literature that the turning point in Keynes's stock-market investments came with one major change that occurred in the early 1930s. It is a well-established fact that, by this time, Keynes had decidedly shifted to the kind of buy-and-hold approach that is well exemplified in his college administration, and that Keynes based this strategy on limited diversification and a highly idiosyncratic selection of a restricted set of shares. Also, Marcuzzo and Sanfilippo (2016) found that Keynes basically gave up his dealings in options in the early 1930s, which can also be interpreted as a break in his style of investment.

Less clear is why, and exactly when, Keynes changed his mind, and how the new stock-market strategy relates to the parallel investment in commodity and exchange markets. Of course, this is not something that can be divined from Keynes's utterances, however numerous they may have been. Without all-inclusive study of Keynes's portfolio and its evolution, no final conclusion can be reached on this matter. One point we might venture at the present stage is that the distinction between the two strategies was probably more blurred than is sometimes suggested.

For instance, a letter from Falk to T.J. Carlyle Gifford (co-director at the Independent Investment Company) sheds some light on how the cycle investment strategy may have been carried out in practice. The letter was sent on 8 February 1924.⁸ Falk explained his dislike of an operation that the two were considering. What this investment was is not clear, but Falk did not like it for two reasons. First, he found it "too great a departure from the credit cycle plan". Second, the proposed purchase was too small. Falk's argument was that their policy at the time was to invest a certain amount of money in a limited number of assets. Otherwise, they would

⁸ A copy of this letter was forwarded to Keynes, among whose papers it remained (see KP IIC/1/1–5).

have had to “acquire information” on too many assets. This seems to suggest that, even at the beginning of the cycle trading period, the strategy was not altogether top-down but at least in part bottom-up.

Evidence and common sense concur in suggesting that Keynes never dropped his own view on general business trends just because he had abandoned cycle trading. By the time he had switched to the bottom-up approach, Keynes’s opinions as a professional economist were purchased (at no trifling cost) by business houses which employed them as a basis for their investments. There is no reason to suppose that he failed to employ the same analyses in determining his own investments and those of the Provincial, King’s and so on. Moreover, Keynes’s correspondence with Scott shows that predictions about the cycle continued to find a place in Keynes’s reasoning:

As regards buying some more railway shares, I personally entirely agree with you. Indeed, I am rather strongly in favour of them. They seem to me to be an almost ideal credit cycle security, in the sense of being good things to buy when one hopes it is somewhere near the bottom of the slump.

(Keynes to Scott, 19 August 1932, KP PC/1/1/130)

What Keynes added along the way was a huge amount of detailed information on a selection of shares from a number of sources, along with an ever more refined taste (developed by cross-examination as well as trial and error) for these sources of *professional* (as distinguished from *confidential*) information and business analysis.

On 10 October 1935, for instance, Keynes wrote a letter to Scott containing four pages of detailed analysis of Austin Motors from both the industrial and financial points of view. This is only one example of Keynes’s detailed study of one of his “pets”, but an entire paper could be dedicated to his long disquisitions with Scott on Austin Motors shares and a few other equities.

As mentioned above, Scott was not as inclined as Keynes to eschew the speculative mentality. Nevertheless, their dialogue always remained on a constructive basis, apparently because Scott adhered to the same idea of “active investment policy” supported by Keynes. This emerges in all evidence on perusing not only the letters but also the accompanying material and the related correspondence, as now collected in the Keynes Papers. The bulk of this material amounts to hundreds of documents of a sundry nature, but all relate to the same need, which was to keep up to date with the markets by constantly gathering evidence.

In this respect, the correspondence with Scott sheds light on a revealing though lesser known aspect of Keynes's business relationship with Walter Case. When D.S. Roswell, a former employee of Case, Pomeroy and Co., was about to set up a new business firm after Case's death, Keynes wrote to Scott about the proposed collaboration, describing Roswell as Case's "principal expert in reporting on the intrinsic value and prospects of American companies" (letter dated 25 April 1939, now in KP BM/3/157–158). He told Scott he had known Roswell "for a long time past", and that "he had more faith in his opinion [...] than anyone else I know" (*ibid.*), but also that, unless Keynes could meet Roswell during one of his American visits, this opinion was usually filtered through Case. Now Roswell was "prepared to offer his services to a limited clientele" (*ibid.*) for an annual fee of £2500 which, Keynes proposed, could be divided between the Provincial, King's College and himself.⁹

A passage in Keynes's letter to Scott is particularly revealing of the kind of information that Keynes was looking for as a mature investor at the apex of his career:

What he does is to make incredibly careful studies of the intrinsic value and long period prospects of the main American securities, the sort of study which it is unfortunately impossible to have made in this country for lack of data, but which can be made in America, especially in the case of the leading utilities.

(Keynes to Scott, 25 April 1939, KP BM/3/157–8)

No doubt this is further proof that Keynes's investment philosophy had definitely turned against cycle investment and in favour of stock-picking value investment. In the context of the correspondence with Scott, however, another interesting possibility this passage suggests is that Keynes was looking for a kind of business information and analysis that could be *complementary* to his own information and analysis as an economist. Connected to this is the fact that the choice between different markets sometimes depended on the relative costs and availability of information, Wall Street being at an advantage over London in this respect.

Taking a broader view, what emerges from Keynes's relationships with his major advisors is that his individualism as an investor may have been somewhat exaggerated. Keynes is frequently quoted for his observation that "[i]t is astonishing what foolish things one can temporarily believe if one thinks too long alone, especially in economics" (Preface to *The*

⁹ In the end a deal was reached, as Keynes announced to Roswell on 10 May 1939 (KP BM/3/171).

General Theory, CWK VII: xxiii). Apparently, for Keynes, the same applied to business too.

True enough, Keynes sometimes complained of the advice received from his correspondents.¹⁰ On the whole, however, Keynes relied on them. In the same vein, the fact that he sometimes expressed dislike for Board management may have concealed another fact, namely that he *did* like to have frequent exchanges of information and qualified opinions with a select range of friends and collaborators. What the Keynes Papers abundantly show is that, for Keynes, investment was a time-consuming activity in which building up a network of reliable connections and collecting sound, relevant information was a costly but decisive task. This he made quite clear in a letter to Scott:

It sometimes seems to me that apart from the noble army of investors who never read the newspapers I am almost the only person left who has an investment rather than a speculative mentality! On every Board I sit on the great majority are influenced far more by the daily fluctuations which they read of in the newspapers than by reasoned calculation of yield or ultimate prospects.

(Keynes to Scott, 7 June 1937, KP PC/1/4/306)

Given this approach, Keynes reaped considerable economies of scale through his participation on several Boards, which might explain why he stayed on them even though he was wont to say that he could not stand them:

The danger of Board management, against which one has to be on one's guard, is lest one should succeed in persuading the Board rather against its better judgment in the first instance, and then have to suffer the penalty of their faint-heartedness at a later date, just when the virtues of continuity of mind are most required if one is to be successful in the long run.

(Keynes to F.C. Scott, 29 November 1933, in CWK XII: 65)

Connected to this is the extent and variety of information that could be relevant for a man who was a professional economist but not a full time

¹⁰ As, for example, in the following excerpt about the losses incurred by the National Mutual: "You will notice that these are practically all specialties and rather obscure concerns, mostly bought on private advice. Omes was due to Trouton: Carbo Plaster and South African Torbanite to Falk; Enfield Rolling Mills and Grand Union Canal to [W. Harold] Brett. I am sure experience shows that private and personal recommendations of this class of security tend to turn out wrong in the long run" (JMK to F.C. Scott, 7 June 1938, in CWK XII: 66). W.H. Brett was one of the brokers employed by the Provincial.

businessman (like, for instance, Case). This is especially true of the 1930s. As an investor, Keynes had now grown up from the amateurish style of the early 1920s, when Trouton and Falk had to brief him on cotton futures or metal options. But he was also engaged in a considerable number of parallel activities as an economist.

As it turns out, Keynes's portfolio choices may have been the result of the juxtaposition of his general vision and systematic analysis of the entire economic system with the information he could actually obtain – this latter element being, at least to some extent, more a matter of circumstances than of deliberate choice. The evolution of Keynes's economic thinking ran parallel to the development of his business skills, the increase in his business contacts, and a process of selection of these sources of information.

5. The Investor as Economist and the Economist as Investor

It is more than likely that there was some connection between Keynes's changing investment policy and the developments in his economic theory. His views on speculation changed over the years as his theory developed and his practice as speculator improved.

The first instance was in 1910, when he was a lecturer at Cambridge and had practically no experience in the Stock Exchange. In his lectures Keynes distinguished between speculators, who base their decisions on the possession of "superior knowledge", and gamblers, who just take more or less calculable risks, as in the game of roulette. Superior knowledge confers the speculator with an advantage over the market. To Keynes this is a matter relevant *not* to measuring comparative success in gambling and in speculation, which may be dependent on other factors, but to evaluating the nature of the action in the two cases. Unlike speculation, gambling is not reasonable because it is a behaviour which has no basis in knowledge, notwithstanding the fact that a gambler may at times be a winner and a speculator a loser (see KP/UA/6/3 and Carabelli 1998).

The next phase in Keynes's thinking – as he became more closely acquainted with the working of markets – was the analysis of speculation in futures (currencies and commodities) presented in his "The forward market in foreign exchanges" (1922), incorporated in the *Tract of Monetary Reform* (1924; CWK IV) and in his 1923 article "Some aspects of commodity markets" (CWK XII: 255–265). The points made there were reiterated in *A Treatise on Money*, where he gave a more refined version of his theory (1930, CWK V and VI).

Future contracts are described as a form of insurance policy against price fluctuations. By stipulating these contracts, producers (consumers) of a commodity for which a future market exists fix in advance the price of a future sale (purchase), thereby freeing themselves from the risk of a price decrease (increase). Keynes assumes that it is mostly professional speculators, generally less risk-averse than producers, who make forward purchases. The prospect of gaining from price changes by buying forward in anticipation of a price increase would eventually allow speculators to resell at a profit on maturity of the forward contract (Fantacci et al. 2010).

Speculators who enter into forward contracts do not have firm expectations of price changes, and hence of windfall profits, but, by providing an insurance against unexpected price changes, they enter the market for the gain they stand to make, rewarding them for the risk price changes entail. Thus, in Keynes's new view, the speculator's ability to forecast the future through superior knowledge is downplayed. He is not "a prophet" (CWK XII: 260), that is, someone who can anticipate price movements more accurately than other actors, but rather a "risk bearer" (ibid.).

This new view did not rule out the importance for a speculator of being acquainted with the working of the future markets, nor of being knowledgeable about specific commodities or currencies, on which the dividing line between a gambler and a professional trader is drawn. In fact, in the transition between the *Treatise* and *The General Theory*, the original idea of rational speculation based on knowledge was incorporated into other terms, like "investment" or "enterprise".

As Keynes became more and more an investor in shares, rather than a speculator in commodities – sometime during the period 1933–1934, which also saw his "revolution" in economic theory in progress – his views on speculation extended to the idea of conformative behaviour based on some tacitly established convention.

For a speculator is a man who anticipates the behaviours of other speculators, so that if all speculators have the same anticipations, all of them will, temporarily, be right; and only when the music stops – for musical chairs is the game which speculators play with one another – will someone find himself without a seat.

("The kaffir boom", February 1933, in CWK XXI: 227–28)¹¹

¹¹ "Kaffirs" was the name given to the South African gold shares quoted on the London market. When South Africa abandoned the gold standard in December 1932, the South African pound depreciated, thus boosting the local currency

This is the view of speculation that found definitive exposition in chapter 12 of *The General Theory*, which hinged upon the opposition between speculation as the attempt to adapt to other people's opinions – no matter whether right or wrong – and enterprise as a behaviour based on actual knowledge of fundamentals.

This entailed transition from a view of speculation as a form of rational and socially sound economic behaviour, most plausibly rooted in the cross-fertilization between the Marshallian explanation of the subject and Keynes's own ideas on rationality, to a view of speculation as possibly rational from the individual agent's viewpoint, but antisocial. As Dardi and Gallegati (1992: 582–83) argue, the view of speculation as distinguished from enterprise, and the distinction between the professional speculator and the amateur, are common to Keynes and his master. Unlike Marshall, however, Keynes grew convinced that the information advantage of the speculator (relative to the amateur) was not about fundamentals. If any advantage there was, it was about the average opinion of the market.

Viewed from the standpoint of his investments, which was so very fundamentals-oriented, speculation may have become for Keynes not just an alternative to, but also an obstacle in the way of, sound investment, or enterprise.

6. Conclusions

In this paper we have reviewed the growing literature that has in recent years taken up a somewhat neglected aspect of Keynes's life as speculator and investor. In particular, we have pieced together the evidence collected on his performance, pointing out that much more needs to be researched before we can conclude that it was in fact “stellar”, as the traditional account has it.

As far as his investment philosophy is concerned, there seems to be a general consensus in describing it as characterized by two distinct phases: the first, from the early 1920s to the early 1930s, guided by the “credit cycle” approach; the second, which Keynes then turned to and pursued to the end, a bottom-up strategy. Cycle trading assumed that assets in general are systematically under- or overvalued at different stages of the trade cycle, and that decisions to sell or purchase should therefore be based more on general conditions than on specific knowledge of individual

receipts of the South African gold-mining companies. This led to a boom in “Kaffirs” in London.

assets and their fundamentals. By contrast, the second approach assumes that with closer examination of specific assets and their fundamentals it is possible to pick out the best of them in terms of prospective yield and/or current price.

While we agree that there seems to be a clear break in his investment behaviour, we would hesitate to attribute it to complete abandonment of the credit cycle approach; indeed, we believe he never completely relinquished it, even during the years when he focused on picking the shares which promised well in terms of future yields.

On the basis of some unpublished material, in particular the correspondence with Scott, we have, we hope, helped to fill in the picture of how Keynes formed his opinions, what information he was seeking and on whose advice he relied mostly. In addressing the evolution of his trading behaviour, we have tried to match it with the developments in his economic thinking in general and on speculation in particular.

What emerges from all this is that Keynes never ceased to be first and foremost an economist who kept sight of the complexity of factors behind the surface of price changes; while he progressively lost confidence in the ability to predict their course in the short run, he remained confident that study of the fundamentals of the economy and of what underlies the individual assets would provide a reasonable basis for a rational, and in the long run at least, successful choice.

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