# Classics and Moderns in Economics Volume II

## Essays on nineteenth- and twentieth-century economic thought

Peter Groenewegen

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# Classics and Moderns in Economics Volume II

This second volume of essays on nineteenth- and early twentieth-century economic thought, complements the first and continues the high standards of scholarship and academic rigour of Volume I.

Part II continued of this involving book is concerned with Alfred Marshall, Maffeo Pantaleoni and Clara Elizabeth Collet. Part III of the text addresses the economists who dominated discussions of economic thought in the early twentieth century: John Maynard Keynes, Joseph Schumpeter, Joan Robinson, Jacob Viner and Colin Clark. The useful final chapter is a thorough review article of the autobiographies of thirty-six contemporary economists. With such inclusive coverage, this book is not only an absorbing read, but will also prove to be of great use as a reference point.

Of interest to students and academics involved in the history of economics, this collection should be on any self-respecting economist's bookshelf. Groenewegen is one of *the* authorities on nineteenth- and twentieth-century economics.

**Peter Groenewegen** is Professor of Economics at the University of Sydney, Australia. He has written widely on the history of economics, including *Eighteenth-century Economics* (Routledge, 2002).

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**Peter Groenewegen**

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# Contents

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# Introduction

The present book is a second collection of my essays on the history of economics, the first concentrating on the previous centuries, particularly the eighteenth. This book, as its title satisfactorily indicates, includes a selection of my contributions to nineteenth- and twentieth-century economics. Their original publication dates range from 1967 to 2001, hence once again reflecting my extensive interest in the whole of the history of economics, sustained over the greater part of my academic career. They also reflect a variety of interests and a generalist approach to the subject, which may be considered as out of place in an age of ever-increasing specialisation. A list of the contents ranked chronologically in terms of original dates of publication (or completion) appears as an appendix to this introduction.

The first three operative words of my title for this book indicate that it discusses classics and moderns. The latter designates adherence to the use of the marginalist method in economics; the meaning of 'classics' in this context is a little more ambiguous. The nature of this ambiguity is raised in Chapter 8, which reviews Marx's approach to defining classical economics. The operational stance on classical economics adopted here is an amalgam of Marx's views and the more contemporary delineation of British classical political economy from Smith to John Stuart Mill and Marx. In a sense, it also embodies Marshall's quite distinctive view of the 'classics' as books of continuing influence, an interpretation of the term which covers much of the work produced by the economic writers whose views are explored in the essays that follow. It needs to be observed as well that the broad, comparative intent of many of these essays makes their classification into such broad categories somewhat problematic.

It may be noted at the outset that the vast majority of these essays come from a relatively later stage of my career than my work on seventeenth- and eighteenth-century economics. The last initially derived from my postgraduate studies, devoted as they were to the economics of Turgot, and to the history of (mainly British) value, production and distribution theory written from 1650 to 1776. In this book, only one item (Chapter 2) dates from the 1960s and, interestingly, half of its contents are devoted to the eighteenth-century economist, Sir James Steuart. Only two essays come from the 1970s (Chapters 3 and 6). Both are devoted to matters associated with Ricardo, though the second draws as well on pre-Ricardo economic writings from the eighteenth century and before. The remainder of the contents was published after my appointment as Professor of Economics at the University of Sydney, perhaps a good reason to justify starting the book with the published version of my 1981 inaugural lecture, though as indicated later, there are other, and better, reasons for this as well. Eight essays come from the 1980s, eighteen from the 1990s, and three from the years 2000 and 2001. The heavy concentration of these essays on the later decades of my academic career as professor, owes much to the research interest I developed from the mid-1980s in Marshall and his economics. I then made the decision to write a biography of Alfred Marshall, and commenced research to that end during a period of study leave in Cambridge in 1984. The biography was published in 1995 (Groenewegen 1995). Almost two-thirds of these essays incorporate a Marshallian theme and emphasis; more than half feature his name in the title.

A further general attribute of the contents of some of these essays can be drawn attention to in the opening remarks of this introduction. Several of them included in this volume also reflect an emphasis on the economics of Australia, my adopted country. Together with Bruce McFarlane, I had written a brief study of the history of Australian economics as part of the Routledge series of national histories of economics (Groenewegen and McFarlane 1990). Chapter 13 mentions Australian economics explicitly in the title; Chapters 10, 24, 31 and 32 have an Australian flavour in parts of their texts.

The original place of publication of the material reprinted here is also rather diverse. Thirteen of these essays were originally published as chapters in books, of which four were contributed to *Festschriften* dedicated to colleagues and friends in three European countries. The last thereby illustrate my cosmopolitan associations: the persons celebrated in this way include an Italian, a Dutchman and two Englishmen, one of whom was my former supervisor for doctoral studies at the London School of Economics, the late Bernard Corry. Seventeen of the essays were originally contributed to journals: of which eight to Australian journals, three each to British or American journals, two to Italian journals, and one to a French journal. Two of the essays have never previously been published. The first of these was an invited address to an Australian Conference of Economists to commemorate the centenary of the birth of Keynes (Chapter 24); the second was a chapter written for a projected volume of essays on Marshall, which in the end never eventuated. Finally, three of the essays are review articles (Chapters 5, 21 and 32); one (Chapter 28) is a brief obituary of an economist whom I greatly admire (Joan Robinson), as is also clearly indicated in the dedication to Chapter 1 (and see below in this introduction). Two of the essays were centenary tributes to two major economists of the twentieth century, both born in 1883 (Chapters 24, 27).

## A more detailed discussion of the contents

In line with the title, the book is divided into parts. Part I, containing nine essays, is simply called 'classics', a term discussed at length in Chapter 8 in the context of Marx's use of the term, as indicated previously. Part II, with fourteen essays spread across the two volumes, covers 'moderns' whose work was largely prepared in the nineteenth century. Here there is a heavy concentration on Marshall's economics (ten chapters), although many of these are comparative studies linking Marshall's thought with that of other economists and, more widely, with other thinkers.

Finally, Part III is devoted to 'moderns' of the twentieth century. Its nine essays deal with Keynes (Chapters 24–6), Schumpeter (Chapter 27), Joan Robinson (Chapter 28), the Cambridge School of Economics between the two World Wars (Chapter 29), Jacob Viner (Chapter 30), Colin Clark (Chapter 31) and the 'cream' of contemporary economic writers (thirty-six in all) whose major work was almost invariably published after World War II (Chapter 32). There are many inter-connections between these parts, frequently by way of comparisons with Marshall, who is linked with Smith, Ricardo and Marx (Chapters 1, 17, 18), with Foxwell and Keynes (Chapters 20, 24, 25) and, more generally, with the whole of the Cambridge School between the two World Wars (Chapter 29).

The remainder of this introduction looks in more detail at each individual essay of Volume II.

### *Moderns: the nineteenth century*

Chapter 17 presents some reflections derived from comparing Smith and Marshall, produced for a *festschrift* in honour of Bernard Corry, the supervisor of my Ph.D. thesis at the LSE. After a short general (and incomplete) overview of the manner in which Smith and Marshall have often been linked, Chapter 17 raises a number of specific issues where such a comparison may be seen to be fruitful: their respective use of fact and theory, their (implicit) views on the micro/macro distinction, their position on statics and dynamics, their views on increasing returns (also raised in Chapters 1 and 11), on competition and free enterprise, and on economic and social progress. In its concluding comments, Chapter 17 indicates that even in economic theory 'great minds often tend to think alike' and that an appreciation and study of their thought, even if more than two hundred years old as in the case of Smith, can pay substantial dividends for current generations of students in economics.

Chapter 18, as indicated previously, looks at Marshall's discussion and evaluation of Ricardo. Although first published in 1993 in a *festschrift* dedicated to Luigi Pasinetti, its first version was prepared during the mid-1970s and presented as a lecture at the University of Florence in 1976 (where it attracted the critical wrath of one of its professors of economics, Giacomo Becattini, who a decade later greatly assisted my research in writing Marshall's biography). Chapter 18 in fact confronts the Sraffa-inspired Ricardo interpretation, formulated in 1960 by Pasinetti himself, with that presented by Marshall in his attempted reconciliation of the old economics of Ricardo with the new economics of marginalism. It therefore carefully surveys Marshall's pronouncements on

Ricardo in virtually all of his writings, and assesses the operational significance of the classical-Ricardo heritage for Marshall's economics, to conclude that Marshall's general and genuine admiration of Ricardo as an economist was not matched by many points in Marshall's economics where Ricardo's influence was explicit and decisive. More generally, Chapter 18 addresses the issue of 'textual exegesis as a scientific problem' (Stigler 1968) for which Marshall's interpretation of Ricardo makes an interesting case study.

Chapter 19 follows naturally from the previous chapter by examining Marshall's opinion on, and practice in, the history of economic thought. It was originally contributed to a conference at Florence commemorating the centenary of Marshall's *Principles of Economics*, and published a year later as part of the conference proceedings. Chapter 19 evaluates Marshall's somewhat ambiguous (and changing) attitudes to the value of the history of economic thought for students of economics. It then looks at his practice in this respect, particularly as disclosed in what eventually became Appendix B of the later editions of the *Principles*. In addition, Chapter 19 tests the accuracy and quality of some of his historical observations and practice by way of a case study of Marshall on the economics of Quesnay and of the Physiocrats. In that way it is a further exercise in evaluating Marshall's rather peculiar exegetical practices, an evaluation which, though only in some respects, reinforces Clapham's view, briefly quoted in Chapter 19's concluding section, that 'Marshall was not a historian'.

Chapter 20 compares the attitudes of Marshall and his colleague Foxwell to their respective libraries as a tribute to Arnold Heertje, himself the proud owner of an economics library very much in the Foxwell tradition. This made it a rather personal essay for me as well, since I have spent a considerable part of my life working with material from both Marshall's and Foxwell's libraries, insofar as they remain extant (I did the greater part of my Ph.D. research in the Goldsmiths' Library at the University of London, which is largely based on the first Foxwell collection, as the chapter explains). More recently, I have benefited from access to volumes of Heertje's library. Chapter 20 is not only interesting from the point of view of different attitudes to library building; it also presents insights into the very different personalities of Marshall and Foxwell, strikingly illustrated in their correspondence about Cantillon's *Essai*. (Groenewegen 1995: 670–9 discusses their long association in detail.) Hence Chapter 20 has a distinct biographical flavour and even, in its note 13, a brief autobiographical dimension.

Chapter 21 contains a longish review of John Whitaker's edition of Marshall's correspondence and associated documents. Reprinting it here with so much of my other work on Marshall is useful because it draws attention to the marvellous range of this tremendous asset for Marshall scholars (and for those more generally interested in Marshall's life and work). For example, its three volumes provide far more than Marshall's correspondence by including many associated documents. Chapter 21 also comments adversely on Pigou's editorial (and conservation) practices when editing *Memorials of Alfred Marshall* (Pigou 1925) in which Marshall's letters were not infrequently 'doctored' by not being reprinted in full. Moreover, Chapter 21 makes the case as well for treating correspondence as a very significant part of an author's work, because letters so often are an invaluable tool for assisting the interpretation of that author's published writings. Letters can provide insights which published texts by their very nature do not, for reasons of which Marshall himself was all too painfully aware (as illustrated from one of his letters quoted in Chapter 21, below, p. 88). Short though it is, the review of Marshall's correspondence reprinted as Chapter 21 makes a fitting conclusion to the material of the previous chapters devoted to Marshall.

Chapter 22 provides a sketch of some aspects of Pantaleoni's economics, originally prepared for a collection on *Italian Economists of the Twentieth Century* (Meacci 1998). The reason why Pantaleoni is here included among nineteenth-century 'moderns' is that the parts of his economics on which Chapter 22 concentrates are largely from his *Pure Economics*, first published in Italy in 1889 and translated into English in 1898. The description of Pantaleoni as 'the Italian Marshall' combined with the fact that two-thirds of his life fall within the nineteenth century, makes it even more appropriate to include this chapter in Part II. For historians of economics, Pantaleoni's *Pure Economics* is particularly interesting because of the lengths to which Pantaleoni often went in acknowledging his predecessors; though its concentration on this part of his extensive economic work makes Chapter 22 flawed as a general assessment of Pantaleoni's economics. It also fails to do full justice to the tremendous influence Pantaleoni exerted on Italian economists, both directly and via the work of his students Barone and Pareto. Chapter 22 is therefore little more than a useful introduction to the work of this somewhat eccentric economist, who was rather ambiguously described in Sraffa's 1924 obituary as the 'prince of [Italian] economics'.

Chapter 23 is devoted to a discussion of the work of Clara Collet, a woman economist whose contributions to labour economics were greatly admired by her contemporaries, even though her work, as the introductory pages of Chapter 23 indicate, has generally been ignored in most histories of economics until recently. This lack of interest in her work is somewhat difficult to grasp, given the fact that her friends and acquaintances also ranged widely over the economic profession during her long life (she died in 1948 aged 88). In addition, Chapter 23 is useful as an antidote to Marshall's misogynist opinions on women's role in society and the workforce (presented in Chapter 14), particularly because Clara Collet forcefully put her more progressive views on this subject in the pages of the *Economic Journal* and at many economics conferences. Like Marshall, she was associated with the work of the Labour Commission, though as a special 'Lady Commissioner' and not, like him, a full member of the commission. The value of reprinting Chapter 23 as an assessment of a rather neglected British woman economist whose work straddled the nineteenth and twentieth centuries was reinforced for me by the request from a German colleague for permission to translate this chapter into German (Gronert 2001: 221–61). In more ways than one, Chapter 23 is therefore a fitting conclusion to the views on nineteenth-century moderns presented in Part II, while its contents can also be described as a bridge to the twentieth-century moderns discussed in Part III.

***Moderns: the twentieth century***

Chapter 24 is the text of a previously unpublished lecture given to a conference of Australian economists on the occasion of the centenary of Keynes' birth in 1983. It examines several broad methodological issues arising from Keynes' major book, the *General Theory of Employment, Interest and Money*. By coincidence, each of these issues is associated with an eminent contemporary of Keynes whose name starts with H. The first issue raised in Chapter 24 outlines Keynes' method of causal ordering and its emphasis on time, an aspect of method Keynes strongly debated with Hicks after the publication of his *General Theory*, and which was obfuscated by the general equilibrium framework which Hicks tried to impose on Keynes' theoretical system. The second methodological issue examines Keynes' attitudes to mathematical economics, including the use of diagrams, a subject on which he had lengthy discussions with Harrod, both before and after publication of the *General Theory*. It also comments on implications of Keynes' decision to avoid diagrams in the book, with the exception of the one foisted on him by Harrod. The third issue, raised initially by Heckscher, concerns the meaning of 'general' as an appropriate descriptor for the new theory which Keynes had published in 1936. Heckscher claimed that Keynes' book lacked genuine generality, because it was inappropriate for dealing with the potential for unemployment in pre-capitalist, agricultural societies. Chapter 24 adds that Hicks had presented different criticism of the generality of Keynes' theory by simply describing the *General Theory* as the 'economics of depression'. Although Chapter 24 will be seen as controversial by some readers, it is valuable in my view because it still indicates that interpretation of Keynes' *General Theory* is an ongoing process, particularly from the enormous amount of new material made available by the publication of Keynes' collected economic writings. This material in my view, still needs to be fully integrated into the extensive Keynes literature before a fully satisfactory picture of his theoretical intentions is obtained. Chapter 24 may contribute something to that process, the reason why it has been included in this collection.

Chapter 25 was originally prepared for a Keynes conference at Wake Forrest University in 1994 as a forum for examining new perspectives on Keynes. My contribution presented the links between Marshall and Keynes on methodology, society and politics, after surveying the intensity of their intellectual association on the basis of material gathered for my Marshall biography (Groenewegen 1995). A most important part of that association is what I describe as their posthumous contact. This occurred through Keynes' research for writing his obituary memoir (Keynes 1924) which included his perusal of Marshall's scrappy notes on social progress and Utopian visions of the good society, his assistance to Pigou in the editing of *Memorials of Alfred Marshall* (Pigou 1925) and, virtually simultaneously, Keynes' own editing of Marshall's *Official Papers* (Keynes 1926) which contained so many of Marshall's opinions on policy issues relating to money, business fluctuations and laissez-faire. Painted on a broad canvas, Chapter 25 provides further insights on the range of potential Marshall influence on Keynes' economic thinking of the 1920s and 1930s, from his re-examination of much of Marshall's work between 1924 and 1926. The fact that the conference for which it was written was held in the mid-1990s supports my view contained in the previous paragraph that Keynes interpretation remains unfinished business.

Chapter 26, 'Marshall Biography after Keynes', has also not been published previously. It was written for a volume of Marshall essays which in the end never appeared. It elaborated on Ronald Coase's remark (reproduced on the back cover of Groenewegen 1995) proclaiming the need for a full-scale biography despite the views expressed by early readers of Keynes' Marshall memoir (Keynes 1924) that it obviated the need for a biography. Chapter 26 reports not only on the writing and the reception of Keynes' memoir, with special emphasis on the nature of the assistance he received during its preparation; it also lists its more significant omissions and factual errors. Many of these relate to Marshall's ancestry, schooling and early work on economics. The concluding section of Chapter 26 affirms the value of full-scale biography for better interpretation of an economist's work, a matter implicitly illustrated in Chapter 25, concerned as it is with the Marshallian legacy for Keynes. Because it is more an essay on Keynes than on Marshall, it belongs to Part III rather than to the Marshall chapters of Part II.

A centenary tribute to Joseph Schumpeter is the subject of Chapter 27. It was originally prepared for a symposium on Keynes, Schumpeter and Marx for the second History of Economic Thought Society of Australia Conference in 1983, and subsequently published in its *Newsletter*. Given its purpose, the tribute concentrates on Schumpeter's contributions to the history of economic thought, in particular his *Economic Doctrine and Method* (Schumpeter 1912), which can be seen as a finished sketch for his never completed and far more detailed *History of Economic Analysis* (Schumpeter 1954) published four decades later. Moreover, Chapter 27 argues that Schumpeter's early brief study of the history of economics had some distinct advantages over its much more ambitious successor. Schumpeter (1912) more strongly emphasised 1750–76 as the period in which economics emerged as a science, with particular stress on the Physiocratic contribution to circular flow analysis as the unifying theme which enabled economic analysis to begin more satisfactorily on solid foundations. On the other hand, Chapter 27 comments critically on the dual sources of economics hypothesis in Schumpeter's small historical study (in terms of speculative philosophers and practical public administrators/merchants) because it risks obfuscation of the considerable overlap between these two categories of contributors to political economy from the still essentially non-specialist seventeenth- and eighteenth-century economic thinkers.

Chapter 28 is a short obituary of Joan Robinson written for the *Australian Left Review*. It thereby pays a personal tribute to an economist whose work I had greatly admired for several decades (see Chapter 1), and whose thinking guided much of my teaching on post-Keynesian economics during the 1970s and 1980s. Chapter 28 provides a concise sketch of Joan Robinson's economic career, emphasising her role in two revolutions of economic theory, together with the fact that she was one of the few great women economists in the history of the subject, yet a person whose significant contributions were nevertheless deemed insufficient for the award of a Nobel Prize in Economics during the fifteen years preceding her death in 1983. The final paragraph briefly compares her with Rosa Luxemburg (for whose *Accumulation of Capital* in a 1951 translation [Luxemburg 1951] Robinson wrote an introduction) because they were both thinkers of enormous intellectual honesty, who revealed themselves in their work as 'the rarest of rare phenomena – Marxists critical of Karl Marx'.

The Marshallian legacy on the monetary economy is the subject of Chapter 29. Its essential message is that non-monetary economies were never seriously entertained as useful abstractions by Marshall and, following him, by Robertson and by Keynes. Pigou, the person whom Marshall had 'anointed' as his successor at Cambridge in 1908, did, however, indulge in moneyless abstractions and occasionally saw money as a veil. Chapter 29 was invited as one of two historical contributions to a volume of essays on inflation and unemployment published in 1996. It successively outlines Marshall's views on the monetary economy from the 1870s onwards, and the views thereon of Robertson and Keynes during the period up to the publication of the *General Theory* in 1936. The conclusions comment briefly on the view of the so-called 'new Keynesians' as yet another manifestation of what Robinson (1975: v) classified as 'pre-Keynesian theory after Keynes'. As a study of the somewhat ambiguous Marshallian legacy to Cambridge economists in the period between the two World Wars, it can also be seen as a supplement to Chapter 25.

Chapter 30 is a tribute to another of my economic heroes, Jacob Viner. It was written as a review article of Viner's *Essays on the Intellectual History of Economics* (Viner 1991), but comments more broadly on Viner and the history of economic thought. It also contains my autobiographical declaration of interest in writing the review, which was published in *Contributions to Political Economy* in 1994, by outlining both my admiration for and correspondence with Jacob Viner. Subsequent sections of Chapter 30 then touch briefly on the following subjects: mercantilism; Adam Smith; economic freedom; utilitarianism, Bentham, Mill and Marshall; history of economics and the economist in history; Viner as reviewer; and Viner as historian of economic thought and member of the Chicago School. Chapter 30 also contains one of my favourite pieces of Viner advice to essay/thesis-writing students: 'footnotes are not free goods', and their use should be carefully rationed.

Chapter 31 contains the text of the third Colin Clark Memorial Lecture delivered at the University of Queensland in 1993 as published in the *Australian Quarterly* a year later. It evaluates some of the consequences of Colin Clark's life and practice in the light of what have been described as the desirable qualities of good economists. The views of J. S. Mill, Marshall and Keynes on this are reported first; the training of Clark the economist is outlined in the next section, while the last section applies Clarkian solutions to economic problems Australia was facing in the early 1990s, with special reference to balance of payments problems. Chapter 31's Australian dimension leads almost directly into its major conclusion: 'the presence of good economists provides an elixir from which others can be continually refreshed'. This makes the re-reading of books by the great minds of the subject always a fruitful exercise – a quality which needs to be kept in mind by those training good economists at universities. Familiarity with the economic classics rarely does harm; it invariably enhances the insights and the skills brought by economists to the practical application of their knowledge.

The theme of 'good economists' is further pursued in the final chapter, which deals with thirty-six exemplary economists. Chapter 32 was written as a review article of two volumes of autobiographical sketches of thirty-six contemporary exemplary economists for the *History of Economics Review*, where it was published in 2000. I wrote it in about a week; it was word-processed by my then secretary with great enjoyment (a rare compliment, since she had never before expressed this sentiment about work of mine she was processing) while I had devoured the contents of the two volumes for review over four afternoons of solid reading. This review article seemed therefore a fitting conclusion to Part III on modern twentieth-century economists, particularly since it deals, often indirectly, with a number of recurring themes in this and the two previous parts of this collection. These include comment on the relative scarcity of women economists, the importance of the history of economics for an economist's training, the international (and national) qualities of economists, the appreciation of Joan Robinson as economist, and some 'exemplary' advice on the training and the quality of good economists. It even touches (but very briefly) on Australian economics via the reference to Max Corden, who is one of the exemplary thirty-six.

## Omissions

This introduction should also indicate that the thirty-two chapters included in both volumes of *Classics and Moderns in Economics* by no means represent my total output on the economics of the classics and moderns of the nineteenth and twentieth centuries. From my writings on classics, for example, if these are defined as nineteenth-century writers before 1870, I have omitted papers on Saint-Simon, on Mangoldt, on Carlyle, on Roscher and on Ruskin (of which the last is still unpublished). In connection with nineteenth-century moderns, I have omitted a great deal more of my work. In the first place, I have deliberately left out a number of my articles on Marshall, largely on the ground that much of their content was duplicated in my biography of Marshall (Groenewegen 1995) which is still in print and, in any case, very accessible. This includes an article on the establishment of the Cambridge economics and politics tripos (Groenewegen 1988), one on Marshall's teaching practices in economics at Cambridge (Groenewegen 1990), one on Marshall's 'weird and wonderful partnership' with Mary Paley Marshall (Groenewegen 1993), one on Marshall's work on the 1890s' Labour Commission (Groenewegen 1994), some shorter pieces on Marshall published in the first three issues of the *Marshall Studies Bulletin*, and a piece on the centenary of publication of Marshall's *Principles* in

*Australian Economic Papers* (Groenewegen 1992). I have also omitted several papers on aspects of Australian economics suitable for this part, as well as papers on Henry George and J. B. Clark. Likewise, in connection with the twentieth-century moderns for Part III, my surveys on radical economics and on taxation economics for the Academy of Social Sciences in Australia (Groenewegen 1979; 1983) could have been included, as well as papers on the Australian experience with respect to the post-1945 internationalisation of economics (Groenewegen 1997b) and on the number of women contributors to Australian economic journals (Groenewegen and King 1998). These would all have distinctly enhanced the Australian flavour of the volume, and greatly added to its length. Whether my actual choice of material for inclusion has already been too generous is a judgement left to my readers. My choice has been predicated on whether, in my view, the pieces reprinted have still something worthwhile to offer, particularly when this has not been sufficiently recognised because of relative inaccessibility of the original material.

I should indicate as well that the material reprinted has not been materially altered. Changes that have been made were to correct spelling errors or poor expression, and to make explicit cross-references to material included in this volume (or to eliminate cross-referencing which was no longer apt). Where relevant, I have also added brief indications (in square brackets) of factual errors, and provided material on actual publication when that was still imminent in the originally printed version. A now antiquated referencing system used in the original version of Chapter 1 has been altered. Readers are therefore confronted with the text of the material as originally published. A companion volume of my essays on eighteenth-century economics (and before) was published by Routledge in 2002.

## Concluding comments

Editing these papers as part of preparing the final manuscript has been an interesting experience. It enabled me to review a great deal of my academic work in the history of economics written over the last four decades. What surprised me was on how little of the specific historiographical contents of this work I had changed my mind. Only some minor factual errors had to be corrected on Steuart's economics for Chapter 2, and in connection with Hegel in Chapter 12. Another, more general change may be noticed. I have acquired much greater admiration for Marshall's subtle economics from my careful study of his life and work over the years following 1984. Moreover, my views on the importance of history and institutional formations for gaining a real understanding of the workings of an actual economy have considerably strengthened. In conclusion, the enjoyment and other benefits I have received from the revisitation of my history of economics work will hopefully be matched by the usefulness of this collection for historians of economics of my own generation and, more importantly, of the future generation who largely come to the material here reprinted for the first time.

## Appendix

Chapters in chronological order by year of publication

| *Year* | *Chapter* | *Short title* |
|---|---|---|
| 1967 | 2 | Steuart and Marx |
| 1972 | 6 | Three notes on Ricardo |
| 1973 | 3 | Origin of phrase 'supply and demand' |
| 1982 | 1 | History and political: Smith, Marx and Marshall |
| | 7 | Thomas de Quincey: 'faithful disciple of Ricardo'? |
| 1983 | 24 | J. M. Keynes (1883–1946) |
| | 27 | J. A. Schumpeter (1883–1950) |
| | 28 | Joan Robinson (1903–83) |
| 1987 | 8 | Marx and classical political economy |
| 1988 | 13 | Marshall and Australian economics |
| | 5 | Pickering's Malthus |
| 1990 | 10 | Neoclassical value and distribution theory |
| | 12 | Marshall and Hegel |
| | 16 | Marshall on taxation |
| 1991 | 19 | Marshall and the history of economic thought |
| 1993 | 18 | Marshall on Ricardo |
| 1994 | 14 | Marshall, women and economic development |
| | 23 | Clara Collet (1860–1948) |
| | 30 | Jacob Viner and the history of economics |
| | 31 | The making of good economists |
| 1995 | 25 | Keynes and Marshall |
| 1996 | 26 | Marshall biography after Keynes |
| | 29 | Unemployment and price stability |
| 1997 | 21 | Marshall's correspondence |
| 1998 | 22 | Maffeo Pantaleoni |
| 1999 | 4 | From optimism to pessimism in economic development |
| | 11 | Perfect competition, equilibrium and economic progress |
| | 17 | Adam Smith and Alfred Marshall |
| | 20 | Alfred Marshall and Herbert Somerton Foxwell |
| 2000 | 9 | Marx and Engels *contra* Loria |
| | 32 | Exemplary economists |
| 2001 | 15 | The evolutionary economics of Alfred Marshall |

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## Part II (continued)

# Nineteenth-century moderns

# 17 Adam Smith and Alfred Marshall

## Some reflections

### Introduction

It is not difficult to link the names of Adam Smith and Alfred Marshall in discussions of the history of economics. Reviewers of Marshall's *Principles* in 1890 did so on numerous occasions, the outstanding example being the review published in the *Edinburgh Review* (Anonymous 1891). Even the year of 1890 implies a link between the two economists. It marked the centenary of Adam Smith's death as well as the 'birth' of Marshall's *Principles*. (In the summer of 1990 I was therefore able to accommodate a visit to Edinburgh to commemorate the bicentenary of Smith's death in between a Royal Economic Society meeting to celebrate the centenary of Marshall's *Principles* and that held in the Marshall Room of the Faculty of Economics and Politics at Cambridge University for an international gathering of Marshall scholars.) George Stigler linked the two as authors of the greatest books on economics ever written, without ever unambiguously committing himself as to which was the superior, and while generously noting the significant errors (or 'failures') they perpetrated in their magnificent texts.

A reverse link is visible in J. A. Schumpeter's *History of Economic Analysis*. It is somewhat difficult to determine which of these two famous economic authors gets the worse treatment in the pages of Schumpeter's large treatise, even though Schumpeter (1954: 834–5) stressed their 'similarity of success and of position in the history of economics' and 'the strong similarity in their vision of general conceptions of the economic process and, in particular with respect to economic evolution'. Schumpeter continues the comparison:

> Also we find an approximate equal distribution of weights as between 'theory' and 'facts', although Marshall's superior art succeeded in banishing mere narration from the pages of the *Principles* – so that to readers who neglect *Industry and Trade*, this treatment looks more purely theoretical than it is and much more so than does A. Smith's. But the similarity extends much further to the main plan (I am not referring to non-essentials such as sequence of topics), and nature of the performance. Marshall was aware of this. He is reported to have said: 'It's all in A. Smith.' There is

> more in this remark than mere recognition of the fact that today's work necessarily grows out of yesterday's – there is recognition of kinship. And there is a final similarity: both the *Wealth* and the *Principles* are what they are, partly, at least, because they are the result of decades and fully matured, the products of minds that took infinite care, were patient of labor, and indifferent to the lapse of years.
>
> (*ibid.*: 835)

The scope for reflections on common aspects of the work of Adam Smith and Alfred Marshall, therefore, seems large. The subsequent sections of this chapter will look at the following: first, the mixture of fact and theory; second, the blending of micro and macro elements; third, the awareness of statics and dynamics; fourth, the stress on division of labour, productivity growth and increasing returns; fifth, their critical views of laissez-faire and emphasis on managed competition; finally, their optimistic belief in progress, derived from their views on division of labour, productivity trends and the benefits of high wages. A final section presents some conclusions.

Given the purposes of these volumes, a reference to a personal perspective on the Smith-Marshall nexus is permissible. For me, Smith and Marshall became strongly related when, some time in 1964, Bernard Corry invited me to assist him in teaching a 'Great Books' course on Smith's *Wealth of Nations* (as a prelude to Ricardo's *Principles*) and Marshall's *Principles*, which he was then teaching at the London School of Economics. Apart from enabling me to earn the princely sum of £5.10 shillings per class, a nice income supplement for a scholarship boy as I then was (I was working on my Ph.D. under Bernard's supervision), the course taught me the enormous value of exposing good students to the great classics of economics. I was fortunate to be able to put this lesson into practice at Sydney almost immediately. I practised the Marshall bit on my return to Sydney for the final term of the 1965 academic year; from the early 1970s I introduced an 'Economic Classics' course to fourth-year honours (and some master's) students; the course initially comprised Smith, Ricardo and Marshall (when three terms divided the teaching year) and, from the late 1980s (when imposed semesters determined course divisions), Marshall's *Principles* and Keynes' *General Theory*. Despite the strong connections between Keynes and Marshall, I greatly regret having had to abandon the Smith-Ricardo-Marshall sequence to which Bernard introduced me; this chapter in his honour at least enables a revisitation of the links between Smith and Marshall which a 'Great Books' seminar course can so strikingly illustrate.

## Fact and theory

Smith's *Wealth of Nations* is well known for its judicious mixture of 'deduction' and 'induction'; of theoretical propositions illustrated by a collection of 'curious facts' as aids to their clarification. In Smith's famous account of the division of labour and its association with the extent of the market, Smith used stories about greyhounds chasing hares, the inventiveness of boys to save themselves labour as a source of productive improvement, and the impetus of easy communication by water for the early development of trade and agriculture in ancient Egypt. The theory of accumulation and thrift uses the visible signs of 'the marriage bed of James the First of England' and 'the great collections of books, statues, pictures and other curiosities' which decorate the country houses and palaces of England and France. Likewise, the fall of the rate of interest and the rise of the public debt are illustrated from the experience of history; the foolishness of hoarding a stock of bullion as a war-chest is demonstrated by the isolated example of the practice of the King of Prussia.

Marshall's *Principles* is quite similar in its intermixing of facts with the theory, even if the theory is more formally expressed and occasionally presented *ex geometrico*. It is not difficult to illustrate Marshall's practice in this regard. For example, the tendency to a diminishing return is exemplified by the Old Testament account of the splitting up of Abraham and Lot, an early instance of migration forced by relative land shortage (Marshall 1890: 201). The bargaining disadvantages of labour are illustrated by the women and children selling hand-made lace and the East London garret masters selling furniture to large and powerful dealers (*ibid.*: 597). Earlier, the use of peas in identifying potential good mechanics among young children illustrates aspects of technical education in the formation of labour supply (*ibid.*: 205, n1).

Marshall differed from Smith's practice on this subject by explicitly pointing to the importance of facts in relation to theory in the methodological chapters which were part of the introductory Book I of his *Principles*. The collection of facts, Marshall (*ibid.*: 74) indicates, 'has thrown light on economic theory, has broadened it, has verified, and has corrected it; but at the same time, has made use of its aid at almost every step. For indeed facts by themselves are silent'. Subsequently, and by way of summary of the matter, Marshall succinctly stated that 'study of theory must go hand in hand with that of the facts' (*ibid.*: 94), a proposition to which Marshall's own practice greatly adhered. As I have shown elsewhere, a significant portion of Marshall's summer holidays were spent in factory inspection and social observation, and this empiricism was supplemented as he got older by increasingly concentrating on reading factual material (Groenewegen 1995: ch. 7, esp. 208–14).

## The micro/macro distinction

The division of the subject into micro- and macroeconomics is a product of developments in the post-1945 period, allegedly inspired by, and designed to accommodate, the theoretical innovations following Keynes' *General Theory*. This division of the subject matter clearly has its uses, if only for dividing the syllabus and facilitating the assignment of teaching. However, the use of the distinction cannot be seen as costless, and emphasis on these costs becomes all the more important as the distinction has hardened into dogma. It is, in this context, also salutary to remember that neither Adam Smith nor Alfred

Marshall employed the distinction and that, indeed, they merged the one into the other as appropriate, hence enriching the treatment they accorded to the subject. A few examples from their books not only illustrate a similarity in their approach on this issue, but also demonstrate how much economics has lost by adhering too rigidly to this distinction.

Adam Smith's great book on growth in modern nomenclature is clearly devoted to a macro-topic. In the development of its argument, however, it relies on value and distribution theory, the resource allocation properties of a price system operating through a competitive market; a theory of accumulation based on the decisions about the disposal of revenue to productive rather than unproductive purposes; and above all, a powerful theory of production. The last is based on the division of labour as the organisational form of productive activity most conducive to growth and reliant on the presence of an adequate capital stock as well as on an extensive market induced by a monetary exchange economy, a cheap transport and communications system and further enlarged by free trade. Smith's account of the causes of the wealth of nations, which for him provided the focal points for the science of political economy, coherently and systematically knits these elements together, hence combining rather than dividing its micro- and macro-components. The power of its argument and the cohesion of its message depend on the superb integration of all the diverse components underlying the laws of motion of a modern, commercial society.

On the other hand, Alfred Marshall's first volume of the *Principles of Economics* tends now to be described as a classic in microeconomics. Its depiction of value and exchange, based on equilibrium of supply and demand, as the core of the book, aids such a classification, as does the book's detailed explanations of both the demand and the supply sides, and its extensive application of value theory to problems of distribution. These all appear to fall firmly within the territory of the microeconomist. A list of Marshall's major theoretical innovations in the *Principles* further enhances the book's microeconomic credentials. These, after all, include the welfare notions of consumers' and producers' surplus, the concepts of quasi-rent and elasticity, the enunciation of a law of substitution, and an emphasis on the practical usefulness of partial equilibrium analysis, all falling within the scope of microeconomics. Classifying Marshall's work as microeconomics, however, unduly narrows his own conception of the subject. It likewise removes substantial elements from its imposing analytical structure. It fails to catch, for example, the theory of growth, which is submerged in the analysis of production and supply in Book IV; it ignores Marshall's emphatic warnings about the fundamental incompleteness of a theory of value which overlooks the features of a monetary economy, international trade and the role of the state. It also misses the stress on interdependence of the economic variables in Marshall's system which gives it a general equilibrium flavour, as Edgeworth (1890) had so clearly perceived in his review of the *Principles* in *Nature*. Less clearly than in Smith, attributable to the fact that Marshall's *Principles* was never completed in the manner intended, Marshall's book attempted to weave together all the important variables for understanding the operations of the contemporary economy, or, as Marshall put it, the 'study of man's actions in the ordinary business of life. … how he gets his income, how he uses it' (Marshall 1890: 1).

## Statics and dynamics

As Schumpeter noted in the passage quoted previously, Adam Smith and Alfred Marshall are further linked in their recognition of the importance of statics and dynamics and, more particularly, of the importance of evolutionary factors in explaining economic development. The difference between their works in this respect is that Smith's completed treatise displays these elements clearly, while Marshall's unfinished *Principles*, which in the end he had to describe as a 'volume of foundations' or preliminary exposition emphasising the static aspects of economics, thereby gives the impression of stressing the dynamics by their general omission from his work. The same applies to a large extent to Marshall's famous emphasis on economic biology as the 'Mecca' of economists, a principle only rarely and implicitly applied in much of the *Principles*.

As is now well recognised, Smith's account of the nature and causes of the wealth of nations is set in the evolutionary framework of a four-stages theory of development in which a primitive society of hunters and gatherers is gradually transformed into a pastoral society of shepherds, which in turn becomes an agricultural society and eventually a commercial society in a natural process of change. Alterations in the mode of producing subsistence, the potential for surplus in these modes and the nature of the property relations implied, explain changes in social classes, in economic activity, in the nature of society and government, as well as improvements in culture and the arts. This materialist historical framework is explicit in Book V, Chapter 1 of the *Wealth of Nations*, but is visible elsewhere throughout the book. Examples include Smith's identification of the implications for value theory of an 'early and rude society' of hunter-gatherers as distinguished from an agricultural society with private property in land, and a commercial society in which capital accumulation has thoroughly taken place. Elements of the 'theory' also intrude into the comparative historical study of 'the different progress of opulence in different nations'.

Smith's 'magnificent dynamics' have been commented on even more frequently. The essentials of his growth theory have been strikingly captured in Hicks' highly simplified version of the Smithian system (Hicks 1965: ch. 4). If $p$ is productivity (output per unit of labour), $k$ is the proportion of the labour force allocated to productive activity (where $0 < k < 1$), and $w$ stands for the wage rate (of homogeneous labour), then $g$, the rate of growth, can be shown to be given by

$$k.\frac{p}{w} - 1.$$

Hicks' summary of Smith by simple equation has a number of distinct merits. It clearly embraces the key variables in Smith's growth analysis: division of labour as the factor explaining productivity growth; the proportion of labour productively applied; while, third, it explicitly indicates that the wage rate was heavily involved in Smith's picture of the growing economy. More interestingly, when Smith's expectations about the likely magnitude of these variables over time are taken into consideration, the equation explains the emphasis Smith gave to the division of labour by opening his treatise with its elucidation. For Smith, the productivity growth potential from the division of labour was substantial, particularly in a market fully extended by free trade. On the other hand, government and landlord prodigality (in terms of a high proportion of the labour force used unproductively) were seen as sufficiently persistent to make a high value for $k$ unlikely. Wage rates, to the contrary, in a growing economy, were likely to be high, and in fact needed to be high. After all, for Smith, high wages tended to make labour more productive while, in addition, workers were entitled to their fair share of the increased wealth that a growing economy produced. The interaction of these variables, even more so when expanded into a relatively full blown model of Smithian growth (for example, Lowe 1975; Eltis 1984: ch. 3) demonstrates the essential dynamics of Smith's work to perfection.

At first sight, Marshall's *Principles* displays much less concern with dynamic problems, particularly when its final editions are studied. In the preface to the eighth edition (Marshall 1920: xiv), Marshall conceded that the 'volume on foundations' his book had become entailed that greater space was devoted to mechanical rather than to biological analogies, because the first were so much more straightforward. Moreover, its emphasis on equilibrium in the 'core' Book V suggested broad stress on statical matters. The last supposition, Marshall warned, was a dangerous one. The keynote of his work remained concerned with dynamics rather than with statics. When the book is read for what it says rather than as a source for what contemporary economics would say about its subject matter, Marshall's reminder about the book's dynamical qualities is not difficult to substantiate. Much of the material in Books IV, V and VI is imbued with the dynamic aspects of the problems it treats, largely because so much of it is placed in a long-term setting where full scope can be given to questions of growth and the grand theme of progress. For example, the notion of 'external economies', one of Marshall's more important conceptual innovations, has found its 'home' in the analysis of economic development because its characteristics fitted most uneasily into the static, partial equilibrium story into which his theory of production (and value) was transformed by later commentators (Stigler 1940: 68–76 is a good illustration). As Loasby (1989: 48) has unambiguously stated, Marshall's work on value is like Smith's, 'it was primarily concerned with a topic alien to modern micro economics, namely the nature and causes of the wealth of nations'. Even his equilibrium theory of value, as enunciated in Books V and VI, is continuously linked with time, 'the chief cause of difficulties in economic investigations', while 'the fiction of the stationary state', to which Marshall paid lip service as an analytical starting point, can only produce the simple type of value theory which Marshall described as 'worse than none' (Marshall 1920: 366, 368).

## Increasing returns

Adam Smith's strong focus on the division of labour is likewise something which Alfred Marshall shared to a considerable extent. The rationale for the prominence Smith gave to the subject was discussed in the previous section above. One interesting implication of this for the subsequent development of economics can be mentioned here. The increasing returns, or decreasing costs, associated with the division of labour and the growth of productivity it inspired, imparted a spirit of optimism to Smith's treatise which was lacking in the work of his successors from Malthus onwards. The principle of population which Malthus systematised and popularised relied essentially on the presence of *diminishing* returns in agriculture, a feature given no real notice in Smith's work (for Smith, agriculture was *less* productive than manufacturing because of the smaller scope it gave to the division of labour). Emphasis on diminishing returns produced an inordinate sense of pessimism for the prospects of society held out by the political economy of the early nineteenth century. The wide acceptance of such a pessimistic prognosis for growth prospects was enhanced by the effects of diminishing returns on profit rates via its impact on wages and thereby on the rate of accumulation. Diminishing returns can therefore be seen as the factor enabling Carlyle's epithet for political economy as the 'dismal science'. Diminishing returns and its implications are also the major factor differentiating the optimistic political economy of Smith, with its roots in the philosophy of enlightenment, from the classical political economy which followed in the nineteenth century, particularly that developed on Malthusian foundations by David Ricardo. It is interesting to note that division of labour and increasing returns are given no prominence whatsoever in Ricardo's *Principles of Political Economy*, a drastic reversion of the argument in Smith's *Wealth of Nations*.

The restoration to prominence of division of labour in Book IV of Marshall's *Principles*, combined with an enormous emphasis on increasing returns which left little mark on the vast majority of economists in the twentieth century, likewise enabled Marshall to banish much of the pessimism of early nineteenth-century political economy from its pages and to give them the optimistic tone so many of the reviewers noted. Despite the significant problems increasing returns caused for neat economic theory, as particularly clearly admitted by Marshall in Appendix H of the later editions of the *Principles* (difficulties, incidentally which are rarely satisfactorily accommodated in contemporary economics text – see Groenewegen [1977: 173–4] for some illustrations), increasing returns remained the cornerstone of Marshall's grand vision for economic progress and the future of the working class. This aspect is more fully discussed below in the seventh section of this chapter. A special problem, often described as Marshall's 'Cournot problem' or that of reconciling increasing returns to scale with a competitive industrial structure, is too well known to require further elaboration. However, one of Marshall's responses to this theoretical dilemma can be usefully recalled for many contemporary economists: this was his attempt to investigate the problem empirically. On his own account

(Marshall to Flux, 7 March 1898, Letter 564, in Whitaker 1996: II, 227–8) a main aim of his factory tours of the 1880s and 1890s was to determine how compatible vigorous increasing returns were with the competitive nature of industry which Marshall prized highly.

## Competition and free enterprise

A strong belief in competition which, when necessary, was managed or regulated, is likewise a common feature of Smith's and Marshall's economics. Before discussing this further, the meaning they assigned to the word 'competition' needs to be briefly discussed, lest it be identified as falling within the later twentieth-century obsession with *perfect* competition. Smith never formally defined competition, but in his treatise it seems to be synonymous with the right to free entry into any activity or trade. Such a condition would ensure a sufficiency of 'players' to encourage that rivalry in trade required to keep prices to as low a level as possible, that governed in fact by cost of production at its 'natural rate'. More surprisingly, Marshall likewise failed to clearly define competition. At the start of the *Principles* (Marshall 1890: 5) its 'simple meaning' is given as 'the racing of one person against another, with special reference to the bidding for the sale or purchase of anything'. Marshall's (*ibid*.: 8) subsequent hint at a replacement term, 'economic freedom', resembles the 'natural liberty' with which Smith defended the right to free entry essential for the preservation of genuine competition (compare *ibid*.: 705). These approaches fall far short of anything resembling the modern terminology of perfect competition. Such a conception was totally alien to Smith's way of thinking; for Marshall's rare use of the term (*ibid*.: 540) it implied 'perfect knowledge of the state of the market', a reasonable assumption only for specialist dealers operating in the money market, the stock exchange or the wholesale produce market. This was elaborated in the earlier discussion of markets 'for things which satisfy in an exceptional way these conditions of being in general demand, cognizable and portable', a situation identified with the stock exchange, the money market and some wholesale produce markets similarly dealing in easily standardised, if not homogeneous, commodities (*ibid*.: 386–7).

Smith's subscription to 'natural liberty' and 'competition' was not universal. Although much of the applied parts of his *Wealth of Nations* can be seen as a guide for enlarging the scope for natural liberty, and hence for greater competition, by deregulation and the removal of trade privileges, this strategy is never made all-embracing. As Viner (1927) demonstrated, free choice of occupations and free trade in land, as well as free domestic and foreign trade, were the four main avenues by which greater natural liberty was to be approximated. Exceptions to this strategy were liberally allowed, as Viner (*ibid*.: 222–32) also demonstrated. These range from a fairly extensive approval of government activities in public works provision, education (though not public welfare through broadening the poor laws, perhaps an oversight) to support for legally determined maximum interest rates, compulsory registration of mortgages, export restrictions on corn and export taxes on wool to give advantages to domestic wool manufacturers, and even partial support for restrictions on foreign shipping inherent in the Navigation Act. Smith's tone on this subject is very pragmatic. It was necessary, in the absence of a better instrument, to rely upon government for the performance of many tasks which individuals as such would not do, or could not do, or could only do badly. He did not believe that laissez-faire was always good, or always bad. 'It depended on circumstances' (*ibid*.: 232). The Scottish moral philosopher and political economist avoided the black and white of hard and fast rules on the issue of natural liberty and competition, important though these were as a guiding principle in economic affairs.

Smith's pragmatism on the subject is fully shared by Marshall, even in the *Principles*, though for the full demonstration of his mature views on the subject the reader has to go to other writings, such as the 1907 'Social Possibilities of Economic Chivalry' and some of his correspondence. In a letter to Bishop Westcott (20 January 1901, Letter 617, in Whitaker 1996: II, 193–6), Marshall defended freedom and competition from the many attacks which were made on it, often 'for selfish purposes'. However, like Smith, there were aspects of competition which needed to be controlled and regulated, or managed for the greater good. The chapter summarising and concluding the opening Book of the *Principles* warns on both the benefits and disadvantages of competition and economic freedom in a way reminiscent of Smith's approach, not of course in the detail, only in the thrust. Some examples make this clear.

Marshall indicates that early nineteenth-century 'free enterprise' based on unfettered competition, revealed an 'unnaturally harsh form' for the sake of greater productivity and the maintenance of individual liberty in relation to property. By the end of the century, 'free enterprise' had been brought 'somewhat under control, to diminish its power of doing evil and increase its power of doing good' (Marshall 1890: 922–3). The Factory Acts passed in the intervening period would have ranked high for Marshall among the measures of control over 'free enterprise' essential for increasing its desirable consequences and reducing its undesirable ones.

Marshall's subsequent outline of practical issues for investigation by the economist, of particular 'urgency' in Great Britain as the century drew to its close, can be quoted in full to show how extensively Marshall departed from a dogmatic laissez-faire position and how closely his views on this tied in with those of Adam Smith (for example, in the third paragraph of the long quotation which follows):

> How should we act as to increase the good and diminish the evil influences of economic freedom, both in its ultimate results and in the course of its progress? If the first are good and the latter evil, but those who suffer the evil, do not reap the good; how far is it right that they should suffer for the benefit of others?
>
> Taking it for granted that a more equal distribution of wealth is to be desired, how far would this justify changes in the institutions of property, or limitations of free enterprise even when they would be likely to diminish

> the aggregate of wealth? In other words, how far should an increase in the income of the poorer classes and a diminution of their work be aimed at, even if it involved some lessening of national material wealth? How far could this be done without injustice, and without slackening the energies of the leaders of progress? How ought the burdens of taxation to be distributed among the different classes of society?
>
> Ought we to rest content with the existing forms of division of labour? Is it necessary that large numbers of the people should be exclusively occupied with work that has no elevating character? Is it possible to educate gradually among the great mass of workers a new capacity for the higher kinds of work; and in particular for undertaking co-operatively the management of the businesses in which they are themselves employed?
>
> What are the proper relations of individual and collective action in a stage of civilization such as ours? How far ought voluntary association in its various forms, old and new, to be left to supply collective action for those purposes for which such action has special advantages? What business affairs should be undertaken by society itself acting through its Government, imperial or local? Have we for instance, carried as far as we should the plan of collective ownership and use of open spaces, of works of art, of the means of instruction and amusement, as well as of those material requisites of a civilized life, the supply of which requires united action, such as gas and water, and railways?
>
> When Government does not itself directly intervene, how far should it allow individuals and corporations to conduct their own affairs as they please? How far should it regulate the management of railways and other concerns which are to some extent in a position of monopoly, and again of land and other things the quantity of which cannot be increased by man? Is it necessary to retain in their full force all the existing rights of property; or have the original necessities for which they were meant to provide, in some measure passed away?
>
> Are the prevailing methods of using wealth entirely justifiable? What scope is there for the moral pressure of social opinion in constraining and directing individual action in those economic relations in which the rigidity and violence of Government interference would be likely to do more harm than good?
>
> In what respect do the duties of one nation to another in economic matters differ from those of members of the same nation to one another?
>
> (*ibid*.: 96–8)

It is interesting to note that these paragraphs about the economist's research agenda on 'economic freedom' and its modification remained in place in the *Principles* for all of its eight editions, with no change whatsoever except in paragraphing.

The 1907 paper on 'Economic Chivalry' comments more directly on laissez-faire and its practical meaning which includes, interestingly enough, a brief comment by Marshall on Adam Smith's views in this regard (Marshall 1907: 334–5).[1] Marshall's phrase to describe the appropriate meaning of laissez-faire at the start of the twentieth century was clearly enunciated: 'Let the State be up and doing' and, as its contents elaborate, let the state especially be active in solving the types of problems which constituted Marshall's economic research agenda from the first edition of the *Principles* onwards. These ranged from redistributive taxation to redistributive expenditures, from occasional state initiatives into enterprise to the regulation of 'free enterprise' where necessary. However, it did not mean a departure, but only a modification of the general principles designed to guide human action on these matters. Marshall remained a staunch adherent of free trade, a policy he considered to be of special importance to Britain; he likewise was extremely cautious about the general benefits from public enterprise or, to use the phrase current in his time, 'municipal socialism' (for a detailed discussion of these issues, see Groenewegen 1995: ch. 16). For the purpose of this discussion, these details are not important. The similarities between Smith and Marshall in this respect arise from their undogmatic stance on the benefits of competition and free enterprise, which contrasts strongly with the dogmatic advocacy of competition screeched by the parrots of free enterprise and deregulation as the twentieth century draws to a close.

## Economic and social progress

The optimistic vision of progress which is characteristic of Smith's *Wealth of Nations* and of Marshall's *Principles* in both cases rests to an inordinate extent on their strong belief in the productivity consequences of the division of labour and the associated decreasing costs (increasing returns). Aspects of this were raised briefly above in the fifth section of this chapter, with special reference to the difference which emphasis on increasing rather than diminishing returns made for the economic growth prospects of the nation and, consequently, the living standards of its people.

In Smith's case, this hardly needs demonstration. His picture of relative differences in living standards of African kings with their enormous powers and that of an 'industrious and frugal peasant' was used to conclude the chapter on the productivity benefits of the division of labour on a particularly striking note (Smith 1976: 24). Part of its impact lay in the fact that it indicates Smith's views that the benefits of this productivity needed to accrue to all classes of society, including wage earners and industrious, frugal peasants. Smith's first objective of political economy (*ibid.*: 428) as a 'branch of the science of the legislator' echoes this belief. An ability to gain access to a 'plentiful revenue or subsistence' is necessary for all the people, provided they help themselves through industry and frugality. Also for Smith, wages needed to be sufficiently high to ensure the possibility for the wage-earning classes to be frugal, and to stimulate their industriousness. Although there is a feedback mechanism between living standards (wages) and population, it is not of the pessimistic Malthusian kind in at least one respect: it does not necessarily lead to a subsistence wage, customary or otherwise. A growing economy, one that is, in other words, expanding the scope for the division of labour, tends to be a high-wage economy.

> The liberal reward of labour, therefore, as it is the necessary effect, so it is the natural symptom of increasing wealth. The scanty maintenance of the labouring poor, on the other hand, is the natural symptom, that things are at a stand, and their starving condition, a sign that they are going backwards.
>
> (*ibid.*: 91)

Smith added some pages later, that 'the liberal reward of labour … increases the industry of the common people' (*ibid.*: 99). Hence it seems not inappropriate to ascribe a cause *and* effect relationship between economic growth and workers' living standards and rate of remuneration.

Marshall's mission in economics can be seen partly in terms of a desire to restore Smith's optimistic vision of the consequences of economic growth, particularly for the working classes. There were two strands in his argument for sustaining a non-Malthusian wages-population spectre and to eliminate thereby the 'dismal' nature of economics. The first was to make increasing returns the key element for securing a satisfactory rate of growth and hence to reduce significantly the potential hazard for workers' living standards from diminishing returns. Second, high wages were seen by Marshall as a cause, and effect, of economic growth, therefore eliminating the effectiveness of the Malthusian vision which translated what were inevitably temporary high wages into new surplus population and hence, via a competitive labour market, to an 'iron law' of subsistence wages. High living standards from high wages for Marshall could translate to high standards of life for the working class with respect to both consumption and thrift, inducing greater productivity and growth. It was a 'virtuous cycle' of increasing prosperity for all, requiring some assistance from government (for example, in stabilising economic activity levels, in providing free and compulsory education up to a certain standard, in preserving and expanding open space essential for healthy living, in appropriate redistributive fiscal measures for securing these and other ends such as assistance to the aged poor and other disadvantaged), but relying mainly on free enterprise in industry and trade. In its essentials, Marshall's picture of economic and social progress does not differ significantly from that presented by Adam Smith at the end of the eighteenth century.

The comment cannot be resisted that in these respects contemporary mainstream economics has moved far from its Smithian and Marshallian heritage. Increasing returns and the division of labour have been largely eliminated from the core of its theory, because of the inelegant implications it introduces into the marginalist story of prices and distribution, whether in a partial equilibrium or general equilibrium setting. Moreover, increasing returns is not conducive to equilibrium economics, the static analysis which Smith implicitly, and Marshall explicitly, banished to the preliminary foundations of the subject. In some ways more significantly, the often indecent rediscovery of the 'virtues' of laissez-faire and deregulation in order to unshackle the advantages of free competition without taking care of its less desirable outcomes, are even less Smithian and Marshallian in their vision. This is particularly the case if and when their particular critiques of government are dogmatically generalised without pragmatically examining the many exceptions which in practice have to be recognised. There is still much to learn by contemporary economists from a Smith and a Marshall, especially when they succumb to the temptation of following the widely held belief that nothing useful can be learned in economics from material more than twenty years old.

## Conclusions

The last paragraph can be taken as one set of conclusions from this comparative reading of two of the greatest economic thinkers over the centuries during which the subject has been developing. Although there are grave dangers in such comparisons, the broad similarities here noted between Smith's and Marshall's visions of economic progress and styles of economic reasoning, provide support for the adage that even in economics, great minds often tend to think alike.

There is more that can be learned from such comparisons of great classics in economics. The method of Smith and Marshall left adequate room for both fact-finding and theory, the two, in their view, needing to march together to make economics a useful, practical science. When theory did not conform to the facts, its findings had to give way. Moreover, the practice of these two economists demonstrates the necessity of treating the subject as a whole, in its widest possible setting, without getting involved with artificial distinctions (such as micro- and macroeconomics) designed largely for pedagogic purposes. Their emphasis on evolutionary change as a key target for economic understanding, and their general disdain of relatively simple static equilibrium modelling, also imparts useful lessons to contemporary practitioners.

In short, a comparative study of Smith and Marshall reinforces the position that there is enormous value in the 'Great Books', or economic classics, course for all advanced students of economics. The classics of economics, as Marshall himself had advised Bonar (Letter 572, dated 27 September 1898, in Whitaker 1996: II, 236), have a permanent value from their ideas which 'can never die but are an existing yeast ceaselessly working in the cosmos'. They cannot, therefore, and should not, be ignored by current practitioners in economics who desire to comprehend their subject. To take the example of previous sections, at the end of the twentieth century, the pragmatic views of Smith and Marshall on the limits of competition and the usefulness of some government intervention still have important lessons to impart. The same undoubtedly applies to other topics in their work and that of other classics. For this reason, I shall always be grateful to Bernard Corry for first demonstrating to me the value of guiding students through the accumulated wisdom of some of the great classics in economics, for their, as well as for our own, education and enlightenment.

## Note

1 The passage is as follows:

> In Adam Smith's time Government was corrupt, and, though he himself, like all his chief followers, was unselfishly devoted to the well-being of the people, experience had taught him to look with suspicion on those who invited the Government to new enterprises for the public weal; for their real motive was generally to increase their own gains, or to provide easy and well-paid positions for themselves and their relatives.

For a particularly incisive comment in the spirit of Marshall's position on the so-called neo-liberal inheritance from Adam Smith, see Haddad (1996: esp. 73–7).

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# 18 Marshall on Ricardo

## Introduction: Pasinetti on Ricardo

In spite of, or perhaps more precisely because of his many contributions to the economic theory of production, Luigi Pasinetti has written a number of interesting and important contributions to the history of the subject. These started with his very influential mathematical formulation of the Ricardian system (Pasinetti 1960). By way of introduction to his major theoretical contributions, Pasinetti (1977; 1981) provided the historical background of the foundations on which he built his own analysis of production, structural change and economic growth. These introductions invariably contrast the classical tradition, in the main exemplified by the work of Ricardo, with the post-1870s marginalist tradition. In a more detailed historical framework, Pasinetti (1986) developed this theme further by examining the theory of value as a source of alternative paradigms in economic analysis. These alternative approaches are reflected in the classical labour model focusing on production, and the pure exchange or pure preference model which came into its own in the post-1870s marginalist period.

Basing itself in part on Pasinetti's interpretation of Ricardo and, more generally, the Sraffa-inspired interpretations, this chapter implicitly confronts such interpretations with the influential perspective on Ricardo's economics by Alfred Marshall, the founder of that Cambridge school of economics of which Pasinetti himself is such a distinguished product. For a number of reasons such an evaluation is particularly appropriate to a volume of essays in honour of Luigi Pasinetti. In the first place, because it focuses on the conflict inherent in the different approaches of classical as against marginalist economics, differences which Pasinetti's work has greatly elucidated. Second, Pasinetti himself has commented on the peculiar role played by Marshall in this context (Pasinetti 1981: 9, n7, 139–42). There Marshall is correctly portrayed as a marginalist economist who attempted a 'reconciliation with the Classical economists' because 'he was never really able to turn his attention away from production' and classical supply considerations. This is the type of view that made Dobb, following Veblen, bestow the title of 'neo-classical economics' on the Marshall school (1931: 369) and Shove (1942: 295) to claim that Marshall's economics 'is of the true Ricardian stock, neither a cross-bred nor a sport'. It also explains what Stigler (1941: 63) described as the 'regrettable' tendency in Marshall of burdening his treatise with classical terminology or, as Schumpeter (1954: 837) put it more poetically, that the rooms in Marshall's new structure 'are unnecessarily cluttered up with Ricardian heirlooms, which receive emphasis quite out of proportion to their operational importance'.

The argument in this chapter is presented as follows. After a review of what Marshall said about Ricardo in his writings, both in general and with respect to particular parts of his doctrines, some conclusions are presented which comment on the operational significance of the classical-Ricardo heritage for Marshall's economics, and which attempt to explain Marshall's emphasis on the continuity between his economics and that of Ricardo and his enormous admiration for the work of that economist. These corroborate in some respects Pasinetti's perspective on Marshall and Ricardo in his theoretical essay on the dynamics of the wealth of nations (Pasinetti 1981).

## Marshall's views on Ricardo

In his famous biographical memoir, Keynes traced the manner in which Marshall gradually switched to economics from mathematics and physics via a study of philosophy, theology, metaphysics and psychology (Keynes 1925: 2–12, see also Whitaker 1975: I, 4–12). Much of this account was based on Marshall's own recollections supplemented by Keynes' conversations with Marshall's widow. These suggest that Marshall's serious reading of economics began in 1867, and included a careful study of Mill's *Principles of Political Economy*, then the dominant text on the subject.[1] In addition, they indicate that Marshall conducted his economics studies by translating the economics he was reading into mathematical form. The extent to which Ricardo was influential during Marshall's formative period as an economist is clearly of relevance to this discussion.

Keynes' account leaves little room for doubt on this score. On the basis of an autobiographical sketch by Marshall, he summarised the position as follows:

> Thus, when Marshall began, Mill and Ricardo still reigned supreme and unchallenged. Roscher … was the only other influence of importance. The notion of applying mathematical methods was in the air. … This, and *the natural reaction of Ricardo on a Cambridge mathematician of that date* … were *all* that Marshall had to go upon in the first instance.
>
> (Keynes 1925: 19, my italics)[2]

The source for this statement by Keynes was Marshall's sketch of himself written for a projected collection of portraits and short lives of eminent economists.[3] The operative sentence from this text is that with which Keynes' quotation of it commences:

> While still giving private lessons in mathematics [i.e. in 1867] he [i.e. Marshall] translated as many as possible of Ricardo's reasonings into mathematics; and he endeavoured to make them more general.
>
> (cited in Keynes 1925: 20)

Earlier recollections by Marshall (but not published until after his death) place less emphasis on Ricardo and more on Mill. The more important of these contained in Marshall's correspondence with J. B. Clark (2/7/1900 and 24/3/1908, which are contained in Pigou 1925: 412, 416) and L. C. Colson (1908 or 1909 in Marshall 1933: 221–2) in fact suggest that J. S. Mill, and not Ricardo, was the dominant influence on his early thinking on economic theory. Internal evidence from Marshall's early economic writings supports the view that Mill rather than Ricardo was the person whose doctrines were being translated into mathematics. Mill's influence on Marshall has been well documented[4] and needs little further discussion, but some of the references to Ricardo in these early writings may be looked at more closely.

As edited and collected by Whitaker (1975), Marshall's earliest economic writings (dated between 1867 and 1874 by Whitaker) contain only a few references to Ricardo, all insubstantial. For example, Marshall's early essay on value refers to Ricardo on only two occasions. The first sees Ricardo's definition of supply and demand as inappropriate (Whitaker 1975: I, 129),[5] the second links his and Malthus' theory of value to the long period (*ibid.*: 144). Ricardo is referred to four times in early manuscript fragments on rent; three of these are highly critical of his views (*ibid.*: 238, 247, 249), the fourth brackets him with the Physiocrats and Smith in assuming that 'labourers are just on the limits of subsistence' (*ibid.*: 153). None of these references suggest Marshall translated Ricardo's theories into mathematics in the late 1860s, as he subsequently claimed.

Likewise, there are only a few references to Ricardo in Marshall's writings of the later 1870s. Marshall's drafts for the uncompleted volume on international trade say little about Ricardo's views on the subject. The few references to his work, all either critical or non-substantial, include brief mentions of Ricardo's doctrine on gross and net revenue, fixed capital in foreign trade and its effect on employment, and also a historical comment portraying Quesnay and Ricardo as founders of the 'two first schools of abstract economics' (Whitaker 1975: II, 61, 99, 85 respectively). Ricardo's views on 'sudden changes in the channels of trade' are used by Marshall to demonstrate that the classical economists were aware of the consequences of drastic policy switches such as a rapid transition to free trade, for example (*ibid.*: II, 106). The only remarks on Ricardo in the privately printed pure theory of international trade are methodological and warn of the dangers of using arithmetical examples (*ibid.*: II, 132–3).

Marshall's first book, *The Economics of Industry*, written jointly with his wife Mary Paley Marshall, also provides no support for the subsequent contention that Ricardo was a greater early influence on his economics than J. S. Mill. However, in Marshall's *Principles*, Ricardo seems to receive far greater notice than in the earlier works, a matter commented on by reviewers of the first edition of the *Principles*. This conforms with Marshall's increasing emphasis on Ricardo's influence in his personal recollections as he grew older.

Marshall's access to Ricardo's works should also be noted. From internal evidence it is clear that the edition of Ricardo he basically used was that edited by McCulloch, during Marshall's lifetime the standard edition of Ricardo's works (see Marshall 1961: I, 835, n1). This edition gave Marshall not only access to the third edition of the *Principles*, but also to the *High Price of Bullion*, *Reply to Bosanquet*, *Essay on the Influence of a Low Price of Corn on the Profits of Stock*, *Proposals for an Economical and Secure Currency*, *On Protection to Agriculture*, *Plan for a National Bank* and *Essay on the Funding System*. In his *Principles*, Marshall also cited Bonar's edition of Ricardo's letters to Malthus (Bonar 1887; and see e.g. Marshall 1961: 819). He owned copies of the letters to McCulloch and Trower, published in the 1890s (Hollander 1895; Bonar and Hollander 1899).[6] Compared to the Sraffa edition of Ricardo's works (Ricardo 1951–73) the more notable items from Ricardo's writings not accessible to Marshall were the correspondence with James Mill and the final paper on absolute and exchangeable value.

Some general remarks on Ricardo by Marshall relating to Ricardo's method, the scope and objectives of Ricardo's *Principles* as Marshall saw them, and the place he assigned to Ricardo in the development of economics, can also be recalled by way of introduction. Consideration of these aspects of Ricardo's work was essential to Marshall's defence of Ricardo against the hostile criticism of his work by both British and European economists. Such critics of Ricardo focused largely on two matters, separate from the Jevonian criticisms of Ricardo's theory of value and distribution. First, and most frequently, the critics focused on the inadequacies of Ricardo's 'abstract' method as compared with the advantages of using a historical (inductive) economics. Second, they emphasised the use which had been made of his views on value, wages and rent by socialist writers, ranging from Marx to the land nationalisation doctrines inspired by Henry George, the last being particularly virulent when Marshall was constructing his *Principles*. Marshall tended to implicitly link these criticisms, as shown by his reference quoted below to the 'evils' from crude applications of Ricardo's conclusions 'to real problems'. In short, Marshall's defence of Ricardo was not only directed at the marginalist critique of his work.

In early writings, Marshall had already described Ricardo's method as abstract, or deductive, and this view was maintained (Marshall 1961: I, 761 and n1, 813; 1921: 674; 1923: 190).[7] Although this abstract method is praised because 'it can lead to new and unexpected results' (Marshall 1961: I, 761, n1) warnings are given about its dangers. 'Great then is the usefulness of Ricardo's method. But even greater are the evils which may arise from a crude application of its suggestions to real problems. For that simplicity which makes it helpful, makes it also deficient and even treacherous' (Marshall 1923: 190). However, Marshall (1961: I, 761) suggested that these dangers were least when the method was applied to the 'theory of currency' and international trade, where 'pure deductive reasoning' was on more 'safe ground'. In addition, Marshall emphasised the pitfalls in using arithmetical examples which

> can as a rule be safely used only as illustrations and not as proofs: for it is generally more difficult to know whether the result has been implicitly assumed in the numbers shown for the special case than it is to determine independently whether the results be true or not.
>
> (Marshall 1961: I, 836; cf. Whitaker 1975: II, 132–3)

As Hicks (1965: 49–50) has pointed out, Marshall also saw considerable strengths in Ricardo's method. These cannot be directly inferred from the text of his *Principles*. In Appendix C of that book Marshall (1961: I, 773) defined the function of 'analysis and deduction in economics' as the art of forging 'rightly many short chains and single connecting links'. This good methodological practice is ascribed to Ricardo in a rather negative manner; Appendix D only 'absolved' Ricardo from indulging 'in long chains of deductive reasoning without reference to direct observation' (Marshall 1961: II, 770–1; cf I, 781). Marshall's half-hearted concession absolving Ricardo from indulging in long chains of reasoning is all the more strange because the procedure of arguing by 'separate logical stages' was in fact an important characteristic of classical political economy, with Ricardo a leading practitioner, as Garegnani (1983: 312) has noted. Marshall's concession was also contradicted in Appendix I (Marshall 1961: I, 816 and see below, second section).

Marshall's perceptions of Ricardo's purpose in writing the *Principles* are also worth noting. They not only shed further light on his views on Ricardo's method, but more importantly reveal an opinion on the background to Ricardo's writings which coloured his interpretation of Ricardo's work. Early editions of Marshall's *Principles* claimed that Ricardo's *Principles* were 'not originally designed for publication' but that they were 'terse notes, written for the benefit of himself and perhaps a few friends, on points of special difficulty' (Marshall 1961: II, 757–8). From the fifth edition, this changed to the view that Ricardo wrote for 'men of affairs with a vast knowledge of the facts of life' (*ibid.*: I, 761, n1). This description of the purpose of Ricardo's *Principles* varies little from the account given in what became Appendix I. Here Marshall (1961: I, 813) said that Ricardo's

> book makes no pretence to be systematic. He was with difficulty induced to publish it; and if in writing it he had in view any readers at all, they were chiefly those statesmen and businessmen with whom he associated. So he purposely omitted many things which were necessary for the logical completeness of his argument, but which they would regard as obvious … further [Ricardo] was 'but a poor master of language'. His exposition is as confused as his thought is profound; he uses words in artificial senses which he does not explain, and to which he does not adhere; and he changes from one hypothesis to another without giving notice. If then we seek to

> understand him rightly, we must interpret him generously, more generously than he himself interpreted Adam Smith.

Marshall may have derived these views from Roscher's statement that 'in judging Ricardo, it must not be forgotten that it was not his intention to write a textbook … but only to communicate to those versed in [political economy] the result of his researches in as brief a manner as possible'. Marshall approvingly quoted this statement (1961: I, 163, n1; II, 179–80) probably because it so clearly matched his own method of interpreting Ricardo. Such an interpretation facilitated the argument that Ricardo's views were often incomplete, that some of his peculiar expression was due to careless writing, and that he did not always list his assumptions clearly, hence supporting a plea for generous interpretation (Marshall 1961: app. I; cf. Marshall 1923: 323, n1, and some fragments of early lecture notes on Ricardo possibly from the early 1870s in Whitaker 1975: II, 253, 257, 260).[8]

Last, Marshall left some general comments on Ricardo's place in the history of economic thought. These give more emphasis to the 'shortcomings of Ricardo and his followers' than to their achievements, despite Marshall's frequently expressed admiration for Ricardo. Marshall's praise concerns their application of deductive reasoning to the theory of money and international trade, where such reasoning was most appropriate. However, 'their work' is criticised for 'a certain narrowness' because they neglected systematic comparative study and tended to generalise the human aspects of their theories from their experience with city men rather than ordinary people (Marshall 1961: I, 761, cf. 12; 154–5). This limited perspective led them into error when dealing with class relationships. Examples are the treatment by 'Ricardo and his followers' 'of labour as a commodity' without discussing the human qualities of workers, and the fact that they

> attributed to the forces of supply and demand a much more mechanical and regular action than is to be found in real life: and they laid down laws with regard to profits and wages that did not really hold even for England in their own time.
>
> (Marshall 1961: I, 762–3)

Marshall here seems to reject the theory of distribution, which Ricardo himself regarded as the core of his *Principles* and the principal objective in the study of political economy. Lack of awareness of change in habits and institutions, combined with a neglect of reassessing their theoretical speculations in the light of such change, constitutes the 'most vital fault' of Ricardo and his contemporaries. Within the context of his only systematic writing on the history of economics, Marshall's praise of Ricardo is confined to contributions to monetary and foreign trade theory, and even here praise is muted, because Marshall hardly ever mentions Ricardo directly by name. As shown subsequently, this probably reflects the fact that only in the area of monetary policy was Marshall directly and demonstrably indebted to Ricardo's opinions. Marshall's undoubted admiration for Ricardo appears founded on more general factors, such as his 'brilliant originality' only approached by Jevons (Marshall 1961: I, 817), or 'the genius which enabled Ricardo to tread his way safely through the most slippery paths of mathematical reasoning, though he had no aid from mathematical training' (Marshall, undated postscript to his review of Jevons, in Pigou 1925: 99–100). It is the form rather than the substance of Ricardo's economic reasoning that made him a classic author, as Marshall indicated in the letter to Bonar (referred to in note 2 above) where 'agreement with many, or even a single point in the argument', is counted as little relative to 'the form or the matter of his words or deeds' or the creation of immortal and original 'architectonic ideas in thought or sentiment … [which] are an existing yeast ceaselessly working in the cosmos'.[9]

## The operational significance of the classical-Ricardo heritage for Marshall's economics

As Shove (1942: 295–6) explained in his centenary evaluation of Marshall, Marshall saw his task as completing the classical economists' theories, rather than correcting them. This aim is particularly clear in Marshall's famous discussion of Ricardo's theory of value. It is also visible in his more prolix analysis of Ricardo's views on rent and wages. Marshall's treatment of Ricardo's monetary theory is also discussed in some detail, for reasons suggested in the preceding section. Rather than dealing with all of Marshall's remarks in Ricardo's economics, therefore, the objective of this section is confined to illustrating aspects of Marshall's interpretation of Ricardo which highlight features of Marshall's enigmatic position on the work of this classical author in economics.

The most famous and controversial of Marshall's statements on Ricardo is Appendix I of the *Principles* on Ricardo's theory of value. Its text changed little between 1890 and 1920, though its position in the book was altered on three occasions (see Marshall 1961: II, 813–16). Its origins go back to Marshall's earliest published piece on economics, the 1872 review of Jevons' *Theory*, of which a substantial part is incorporated in the Appendix (see Marshall 1961: I, 817–19; Marshall 1872, in Pigou 1925: 93–5). Appendix I is largely devoted to a defence of Ricardo against criticism attributed to Jevons and others (Macleod, Walras, Menger, Böhm-Bawerk and von Wieser). These critics, Marshall argued, were all confused on the *mutual* determination of value by the 'one all-ruling law of supply and demand', depicted by Marshall's colourful analogies like the 'blades of the scissors' and the 'balls in the bowl' (Marshall 1961: I, 818, 820).

Marshall admits that Ricardo shared in such confusions about the mutual determination aspects of the theory of value. He nevertheless argued that Ricardo's theory required completion rather than reconstruction, because Ricardo was fully aware of the fact

> that demand played an essential part in governing value, but that he regarded its action as less obscure than that of cost of production, and therefore passed it lightly over in the notes which he made for the use of his friends, and himself; for he never essayed to write a formal treatise.
>
> (Marshall 1961: I, 503, cf. 85, 101, n1, 525; 1921: 396–7; 1923: 167)

Marshall's position therefore depends in part on the characteristics he ascribed to Ricardo's *Principles*, which in the previous section were shown to be no longer sustainable on the current information about Ricardo's writing of that book. In addition, it relies substantially on quotations from the correspondence with Malthus, to demonstrate Ricardo's position with respect to supply and demand.[10] Last, Marshall demonstrates Ricardo's awareness of the role of demand and the nature of wants from textual evidence in Ricardo's *Principles*. Marshall correctly suggests that Ricardo believed utility to be absolutely essential to value, though not to the measure of value. Evidence is then produced by Marshall to show that Ricardo introduced 'subjective' elements into his value theory when he referred to 'desires', 'wants' and 'wishes of the people', by way of introducing his well known interpretation of Ricardo's chapter on value and riches in terms of marginal and total utility. Only Ricardo's lack of calculus and 'the right words in which to say it neatly', Marshall concluded, prevented him from stating the law of diminishing marginal utility. Both recognition of the importance of demand to value theory and preliminary investigation of its subjective foundations are ascribed to Ricardo by Marshall on the basis of this evidence.[11]

From the demand side, explicitly acknowledged to have been imperfectly developed by Ricardo, Marshall switches to what he calls the supply or cost of production side (Marshall 1961: I, 814). In this context, Marshall successively indicates a number of propositions which according to him can be attributed to Ricardo. First, it is claimed Ricardo was fully aware that commodities 'fall into three classes … of diminishing, of constant, or of increasing returns; yet he thought it best to ignore this distinction … [and to assume] provisionally that they all obeyed the law of constant returns' (*ibid.*). Marshall subsequently provides a reader's guide through Chapter 1 of Ricardo's *Principles*. A labour proportionality rule is ascribed to Ricardo in 'early stages of society' where capital is unimportant and labour can be assumed homogeneous, but these assumptions break down during 'later stages of civilization' in which 'the relation of value to cost of production is more complex' (Marshall 1961: I, 814–15). Marshall then criticises Ricardo for assuming, rather than analysing, that under modern conditions variations in the reward for different types of labour 'cannot be great', and then discusses the qualifications to the labour proportionality value rule which Pasinetti (1960: 21) neatly summarised as variations in the relative time period of production. Although acknowledging that it is possible to interpret Ricardo as thinking that such modifications were slight, Marshall prefers to draw attention to Ricardo's identification of cost and value where cost of production includes profits, and to Ricardo's strong emphasis on the fact that 'time or waiting as well as labour is an element of cost of production' (*ibid.*: 816).

Marshall's perspective on Ricardo's theory of value in relation to later developments follows from this characterisation of its essentials. On the basis of a letter to Malthus (in Bonar 1887: 173–6), Ricardo's position is described to be 'more philosophic in principle and closer to the actual facts of life' than that of Jevons and some of the other marginalist critics. He can only be criticised for not stating his assumptions clearly (particularly with respect to the partial equilibrium and long-term nature of the argument), in being careless 'with regard to the element of time' and above all, for not clearly stating, perhaps from lack of complete or clear perception, 'how, in the problem of normal value, the various elements govern one another *mutually*, and *successively*, in a long chain of causation'. Methodologically he was therefore guilty of what Marshall most disliked in economic reasoning: 'the bad habit of endeavouring to express great economic doctrines in short sentences' (Marshall 1961: I, 816, 819, 821).

Irrespective of the interpretation the reader may hold of Ricardo on value, Marshall's views on the subject can be criticised on several grounds. Above all, he can be charged with an anachronistic reading of Ricardo's text, which transforms Ricardo's notions into Marshallian terminology and thereby induces the resemblances Marshall desires his readers to find. Examples are Marshall's attribution to Ricardo of a threefold classification of commodities in terms of the laws of returns; the assumption of constant returns in his value theory; the identification of long-term normal value with Ricardo's natural price; and the attempted identification of Ricardo's utility notion with those Marshall held himself. Second, Marshall can be charged with interpreting Ricardo's value theory exclusively as an analysis of 'causes which govern the relative exchange values of different things'. He only casually noted its measurement role, and confined this to monetary questions rather than the question of distribution, which as the Mill-Ricardo correspondence so convincingly shows, was the basic motivation for Ricardo's search for an invariable standard of value. The measurement requirements of Ricardo's value theory were dismissed in the *Principles* (1961: I, 821) as largely 'historical', but this view was at least partly contradicted in Marshall's later book on money (1923: 21–2).[12]

Marshall's defence of Ricardo's theory of value was strongly criticised by Ashley (1891), a criticism to which Marshall briefly replied in the *Principles* (1961: I, 816–17, n1; II, 815). This reply largely concentrated on two issues. The first was Marshall's rejection of the widely held view that Ricardo saw cost of production in terms of quantities of labour only, a proposition subject to only minor modifications on this view of Ricardo and the one most consistent with his writings as a whole. Second, Marshall strongly defended his own position on the subject, that is, that Ricardo had an incomplete theory, 'true as far as it went', hence the need for rehabilitation, 'i.e. clothing more fully his somewhat naked doctrines'. This does less than justice to Ashley, who had criticised Marshall for attempting to justify his substantial changes in economics by 'a new interpretation of an authoritative text' (1891: 474) and who, in this context, could depict Marshall as running the risk of the 'sympathetic theorist' in being 'unhistorical' for attempting to achieve that aim (1891: 489). Although Ashley conceded Marshall's attitude was a 'natural one … it is not without its dangers', and in particular such dangers are great if the aim is to obtain a reasonable understanding of Ricardo's theory of value. Ashley's own exegetical standards, including his use of what contemporary writers judged Ricardo to mean in his theory of value, were far superior to the peculiar practice of Marshall in this regard. Similar criticisms of Marshall's exegetical practices have been made by others.[13]

After value, rent is next in importance as a topic on which Marshall frequently mentioned Ricardo in his *Principles*. The thrust of Marshall's interpretation of Ricardo on rent is broadly similar to that on value theory. Marshall viewed Ricardo's theory of rent and associated topics as 'correct as far as it goes', but it had to be generously interpreted by making due allowance for his careless use of language. This allows Marshall to infer that in the analysis and theory of rent, 'of which Ricardo was the chief builder, [there are] firm if often unseen foundations [for the present theory]' (Marshall 1961: II, 512, cf. II, 493, 495).

Marshall's general observations on Ricardo's rent analysis are well illustrated in Appendix L of the *Principles* on Ricardo's (and Mill's) doctrine on taxes on raw produce and improvements in agriculture. Marshall regarded Ricardo's analysis of the incidence of taxes on raw produce as perfectly correct, though his use of the assumption of 'zero elasticity of demand' for corn is criticised for its lack of realism. Ricardo is also criticised for his carelessness in failing to specify the time period assumed in the analysis. 'When appropriate interpreting clauses are supplied, very few of his reasonings will be found invalid', and a similar conclusion is drawn by Marshall for his analysis of the effects on rent of a capital saving improvement in corn production (Marshall 1961: I, 833–4, 835–6).[14]

A study of Ricardo's text reveals that Marshall's interpreting clauses are inappropriate for understanding Ricardo's argument. Two examples suffice. First, Marshall is quite wrong in saying that Ricardo did not specify the time period under consideration with sufficient care; in fact, the chapter on taxes on raw produce shows Ricardo particularly careful to distinguish immediate from more long-term effects (Ricardo 1951–73: I, 160–2). Second, and more important, Marshall's attribution to Ricardo of an 'absolutely inelastic' demand for produce suggests that Ricardo saw demand as a function of price and not, as Ricardo explicitly does in the chapter referred to, as influenced largely by changes in income (Ricardo 1951–73: I, 162–4). Marshall's specific identification of classical demand theory with the marginalist view of the subject is a typical interpretative anachronism which does less than justice to Ricardo's text.

Other aspects of Marshall's evaluation of Ricardo's rent theory need less extensive treatment. For example, Ricardo's phrase 'the original and indestructible powers of the soil' is favourably mentioned (Marshall 1961: I, 144, n1) while the depiction of rent as a 'limitation of the bounty of nature' is a 'further truth' ascribed to Ricardo (*ibid.*: 633). However, Marshall's claims that Ricardo treated rent basically as a 'scarcity price' and his occasional identification of

Ricardo's rent analysis as one of 'producer surplus' (*ibid*.: 644, n2, 834), are further instances of reading his own views into those of Ricardo.

Similar considerations can be shown to apply to Marshall's discussion of Ricardo on wages. In the first place, Marshall strongly disassociated Ricardo from his 'German socialist followers' on the so-called 'iron law of wages'. Ricardo had clearly argued that the natural price of labour depends on 'the habits and customs of the people' and is not 'absolutely fixed and constant' (Marshall 1961: I, 508). This part of Marshall's rehabilitation of Ricardo was also criticised by Ashley (1891: 484–5) because Ricardo's subsistence wage theory 'led directly' to some of his 'most important doctrines' on profits and taxation. Whether Marshall or Ashley were right on this issue raises difficult problems in interpreting Ricardo's theory of wages. Operational significance of the subsistence wage for Ricardo was, however, implicitly denied by Marshall (1961: I, 508, n4) while it may also be noted that the detailed reference to the precise location of Ashley's criticism was deleted from the fifth edition onwards (Marshall 1961: II, 552–3).[15]

Two further observations can be made on Marshall's interpretation of Ricardo's views on wages. In the first edition of his *Principles*, Marshall attempted to demonstrate that

> Ricardo and the able businessmen who followed in his wake were perfectly familiar with the practical working of the Law of Substitution. But, perhaps for that very reason, they did not emphasise it, did not make clear the important position which it really holds in their doctrines of wages.
>
> (Marshall 1961: II, 592)

This generous interpretation appears to have been too much, even for the generosity of Marshall, and the passage was transformed from the third edition onwards to refer to Ricardo's (and businessmen's) practical familiarity with the 'law of demand' in the context of the theory of value, for reasons not explained by Guillebaud. Later in the chapter on wages, there is a subtle attempt by Marshall in a rather long footnote (Marshall 1961: I, 550, n1) to associate Ricardo with a productivity theory of wages. Although this footnote can be read to imply a concept of wages in terms of the total product going to labour, Marshall transforms Ricardo's aggregate concept of wages into an argument relating the individual labourer's wages to *his* product and consequently the profitability of *his* labour to *his* employer. When read in the context of the argument to which the footnote refers, this suggests that Ricardo's views on wages resemble Marshall's own productivity theory.[16]

Finally, Marshall's comments on Ricardo's monetary and trade theory must be briefly examined. Here it is possible to identify one subject where Ricardo clearly influenced the work of Marshall in a positive manner, as Marshall himself explicitly acknowledged. This is Marshall's strong support for a modified version of Ricardo's 1816 ingot plan (Ricardo 1951–73: IV, 65–73, esp. 66–7), or, as Bonar (1923: 298–9) called it, 'Professor Marshall's symmetalism …

expressly based on Ricardo's Economical and Secure Currency' (cf. Keynes 1925: 31). Marshall put this scheme forward in 1886 in his written answers on currency and prices in connection with the Royal Commission on the Depression of Trade and Industry (Marshall 1916: 14–15). He developed it further in his written submission and oral evidence to the Royal Commission on the Values of Gold and Silver in 1887–8 (Marshall 1926: 18–31, 102–3, 165). The essentials from this evidence were incorporated into his *Money, Credit and Commerce* more than three decades later (Marshall 1923: 64–7, esp. 65). Marshall's version of Ricardo's ingot plan, in my opinion, is the one Marshallian proposition which can unambiguously be described as being 'of the true Ricardian stock, neither a cross-bred nor a sport', to use Shove's (1942: 295) phrase.

Marshall's evidence reveals detailed knowledge of Ricardo's monetary theory and policy writings so well represented in the McCulloch edition of Ricardo's works. Two points of his detailed knowledge of Ricardo's monetary proposals may be noted here.

The first relates to Ricardo's opinion as to whether a gold or a silver standard was the more appropriate. This led to a number of altercations during Marshall's appearances before the Gold and Silver Commission. At his second appearance he was asked by Mr. Barbour (Q. 9838) whether Ricardo did not 'recommend silver as the standard of England' to which Marshall replied in the negative, referring to Ricardo's gold ingot plan based on gold bars of twenty ounces as the standard for a 'safe international currency'. A follow-up question quoting Ricardo on the advantages of silver as a standard elicited the reply from Marshall that he did not think that Ricardo's proposal provided for bars of silver (Marshall 1926: 102–3).[17] Towards the end of this session, the matter was referred to again in the context of a reference to Lord Liverpool's opinion about a popular preference for gold coin, an opinion with which Ricardo had disagreed. In this discussion, Ricardo's remarks on Locke's preference for a silver standard were quoted, in which he had also argued that under a silver standard, gold coin should be left to fluctuate according to the relative market values of gold and silver. Contrary to Locke, Ricardo believed that the guinea had been overvalued at 22 shillings and at 21s 6d, and that this caused export of silver and the retention of gold coin (Ricardo 1951–73: III, 202–3 and cf. 176–8 and III, 65–6). Marshall agreed with this proposition of Ricardo and conceded that 'Ricardo would not have denied that the people had a great preference for gold' (Marshall 1926: 136–7).

At a subsequent hearing there was another exchange on Ricardo's alleged preference for a silver standard as a sound basis for a paper currency. This time, reference was made to Chapter 27 of his *Principles*, particularly to two paragraphs in which Ricardo praised the introduction of a domestic paper currency and restated his preference for a mono-metallic system based on either gold or silver rather than the dual standard criticised at the end of the seventeenth century by Locke (Ricardo 1951–73: I, 361, 369; Marshall 1926: 143–4). Marshall once again indicated agreement with Ricardo's propositions on a 'national scheme of fixed-ratio-mintage', but added that he now also agreed with Mr Barbour's opinion that Ricardo's general preference had been for a silver rather than a gold standard.[18]

The second point of interest in Marshall's evidence is his opinion that for Ricardo bullion is only a commodity in international trade, and that money is only a mechanism for facilitating what essentially are barter transactions. Marshall significantly described this as a sound proposition about permanent but not about temporary effects, a proposition with which Ricardo would not have disagreed (Marshall 1926: 115–16, 117–18, cf. 372). The remaining references to Ricardo in Marshall's official papers are non-substantial, referring to Ricardo's pioneering work in the foreign exchanges in relation to the direction of trade, a theory which Marshall appreciated because of its value for policy discussion (Marshall 1926: 170, 372). Marshall's opinions of Ricardo's monetary and trade doctrines conform with the high place he accorded them in his view of the development of economic thought, though Fay (1960: 35) reports a partial change of mind. By 1907–8, 'after long years of thought he [i.e. Marshall] had come to the conclusion that in the great currency controversy of Tooke versus Ricardo, Tooke was more right than Ricardo'.

Subsequent references to Ricardo's international trade theory by Marshall are not very important. Ricardo's work in trade theory, particularly the doctrine of comparative advantage, is praised in general terms (Marshall 1923: 108, 148; cf. 1921: 19, n1) but these contributions are also criticised as over-simplifications of complex problems and as far too abstract (Marshall 1923: 158, 321). On this subject Mill and Ricardo are invariably bracketed together as the pioneers, and it is particularly interesting to see that on one such occasion, while it appears from the text that Ricardo's conclusion is being quoted, the actual quotation is from J. S. Mill (Marshall 1923: 231 and n1). As indicated earlier in note 4, Marshall was indebted to Mill on the subject of international trade. Apart from the ingot plan, it seems therefore not possible to speak of any appreciable direct Ricardo influence on Marshall.

## Concluding remarks

This examination of Marshall's views on Ricardo allows some further conclusions. These in part shed light on matters raised by Pasinetti in his identification of a dual approach to economic theory. They also afford an opportunity for comment on the use and abuse of methods of interpreting the work of a particular author, a matter of importance for historians of economic thought.

First, the previous sections permit judgement on the extent and nature of Marshall's admiration for Ricardo. They also assist an assessment of the importance of the 'Ricardian lineage' for Marshallian economics. There is little reason to doubt Marshall's admiration for Ricardo's genius as an economist, particularly with respect to his enormous logical powers in handling economic problems. However, Marshall was rather circumspect in his praise of Ricardo's method and confined its suitable application to monetary theory. Marshall's later claims about substantial intellectual obligations to Ricardo (see Whitaker 1975: II, 249, n5) are difficult to sustain on the available evidence. Marshall's own recollections have to be regarded with considerable suspicion, because of a tendency as he got older to substitute Ricardo's influence for the real influence exerted by J. S. Mill. Marshall's early writings on economics, for example, reveal no strong Ricardo influence. Furthermore, there is no substantial theoretical matter in the core of Marshall's *Principles*, that is, the theory of value and distribution as set out by him in that and earlier work, which bears unmistakable signs of a Ricardo influence. Marshall's one genuine obligation to Ricardo which can be identified is his acceptance and modification of Ricardo's ingot plan for an 'economical and secure currency'.

Lack of influence has, of course, little to do with Marshall's genuine expressions of admiration for Ricardo's genius as a classical economist in the meaning he himself had given the term. Ricardo had clearly produced such immortal 'architectonic ideas in thought' which qualified him as a classical thinker; lack of agreement on Marshall's part with specific, if not with most points in Ricardo's doctrine, did nothing to destroy the basis for such a judgement, as Marshall had written on the subject to Bonar (in Pigou 1925: 374). In addition, Marshall would have fully endorsed the thrust of Ashley's (1891: 475) judgement that 'English economists can hardly fail to be proud of Ricardo … [and that] it is a comfort for the staid and academic to feel that they are building on [his] foundations'. Admiration for genius, filial piety, plus a very strong sense of the desirability of continuity in doctrine (cf. Marshall 1961: I, v) explains much of the nature of Marshall's views on Ricardo expressed in later life. It does, of course, not explain all, as Pasinetti (1981: 138–42, esp. 140) has explicitly noted. Elucidation of this permits further understanding of the extent of Marshall's Ricardian lineage.

A distinction can be made in this context between some of Marshall's classical heirlooms which, in Schumpeter's phrase, cluttered up the individual rooms of his new structure. A number of these, contrary to Schumpeter's view quoted at the start of this paper, have significant operational value in Marshall's system, though others clearly do not.[19] Pasinetti has identified the following features of Ricardian analysis which are important in Marshall's work. The first is his emphasis on reproducible rather than scarce commodities *per se*; the second his stress on the long run 'and the fundamental determinants, which make themselves felt in the long run' (Pasinetti 1981: 140). In addition, though not unrelated to emphasis on the long run, is the dynamic treatment underlying Marshall's theory of value (cf. Loasby 1978: esp. 586–7; Dardi 1984: esp. ch. 4) and his never-ending quest to incorporate evolutionary changes in his system. His emphasis on the importance of the division of labour and external economies, combined with his recognition of the difficulties they raise for marginalist theory (Marshall 1961: I, 805–9) is another important classical heirloom, more associated with Smith than Ricardo. In this sense, Marshall fits the neoclassical label which Dobb (1931) bestowed on him. However, it may be noted that these are classical economics attributes rather than views attributable to Ricardo alone.

Given such considerations, Marshall's admiration for his classical predecessors becomes easier to understand. However, this does not absolve him from the ahistorical and anachronistic practices he used in his interpretation of Ricardo and which, at best, can be described as misleading. Marshall's interpretative rules have been described as 'personal exegesis' or a desire 'to ascertain what [an author] really meant' by interpreting ambiguous phrases in such a way that they conform with the meaning 'he would have wished us to give them' on the basis of other passages in his writings (Marshall 1961: I, 813).[20] When criticised, Marshall defended these rules as follows: 'each reader must decide for himself according to his temperament; *it does not lend itself to be solved by argument*' (Marshall 1961: I, 817n, my italics).

As indicated in the previous section, Marshall did not strictly apply these rules as he had originally stated them, that is, by defending the meanings he assigned to Ricardo's propositions through a careful textual exegesis of passages from his writings. The opposite is in fact true, since it was noted that Marshall was rather economical in quoting from Ricardo's text. His actual working rules for the interpretation appear quite different. He purposefully started from the premise that Ricardo's *Principles* was an incomplete and badly constructed book where the author's intention was interpreted as deliberately omitting obvious material, defined as that which could be easily supplied by his specialist readers. From this opinion on the nature of Ricardo's *Principles*, the reader (including, of course, Marshall himself) was given licence to introduce any argument into the text which he considered Ricardo would have thought 'obvious', thereby 'completing' the book in an 'appropriate' manner. This makes a travesty of the scope and contents of Ricardo's *Principles* and of its serious textual interpretation. Sraffa's demonstration (in Ricardo 1951–73: I, xii–xxx) of the importance for textual interpretation of 'arrangements and subdivisions' of contents can be usefully recalled here.

The basic thrust of Marshall's comments on Ricardo cannot therefore be accepted as accurate, nor can it be said, as Marshall himself suggested in his later years, that he owed a substantial intellectual obligation to Ricardo. Hence Marshall's lengthy, scattered and not very detailed commentary on Ricardo is a good illustration of 'the fact that each generation rewrites its own history of economics [and that] from this perspective an evaluation often tells us more about the commentator than the subject' (Hollander 1979: 4). Contextual reading, as a more appropriate approach to understanding a classical text like Ricardo's *Principles*, shows that Hollander's dictum need not necessarily apply. A contextual reading exacts higher standards of scholarship and greater historical knowledge from the author who is investigating the meaning of the text, but such practice is rewarded by a richer appreciation of the work studied. Pasinetti's historical contributions, particularly his discussion of the theory of value (Pasinetti 1986: 410–11), warn against 'straining' the meaning of a text in the manner Marshall did with Ricardo. Irrespective of the merits of Pasinetti's own contributions to interpreting Ricardo, and more generally, classical economics, this shows the fastidious nature of Pasinetti's judgement in this matter, and the enormous value of his contributions for the practising historian of economic thought as well as for economists in general.[21]

## Notes

1 Marshall's personal copy of the 1865 People's Edition of J. S. Mill's *Principles* is in the Cambridge University Library (Marshall, d61). It contains many annotations made at various periods of Marshall's life and, on the basis of his handwriting, a considerable number of these appear to have been made in the late 1860s.

2 In the paragraph from which this quotation is taken, Keynes also refers to Cournot and Mill. Keynes' reference to Mill is surprising, since it confines his influence on a Cambridge mathematician to 'some hints of algebraic treatment in the arithmetical examples of Mill's Book III chapter XVIII on "International Values"' (Keynes 1925: 19). Since these hints are generally regarded as the inspiration for Marshall's pioneering work on reciprocal demand curves, Keynes' downgrading of Mill's influence on Marshall is surprising. Keynes' remark may reflect precisely Marshall's views derived by him in conversations, on which much of the memoir is based.

3 This autobiographical sketch from which Keynes only quoted an extract has been reproduced in full with an introduction in Robinson (1972). See also Whitaker (1975: I, 6, n8) and Robinson (1973), which suggests that there are some difficulties in the precise dating of this fragment.

4 Mill's influence on Marshall was greatest on the theory of value, international (see Viner 1937: 535–46; Haberler 1936: esp. 145–54) and domestic (Bharadwaj 1978: 254–8). See also Stigler (1965a: 6–11), which suggests a wider range of influence. Marshall's views on Mill underwent considerable change, as is documented in his correspondence. In July and August 1883 he quarrelled on this subject with Foxwell, warning him not to 'vilify Mill', and though conceding that Mill 'is literary and therefore full of error … he and Ricardo contain their kernel of truth'. Fourteen years later, in 1897, Marshall was more conciliatory to Foxwell's critical views of Mill, agreeing 'with the tendency of all you say about him: but I do not go as far as you do. Even when I differ from him, he seems to keep my mind in a higher plane of thought than ordinary writers of economics'. In 1898 Marshall wrote to Bonar, with reference to Bonar's entry on classical political economy in Palgrave, that 'I incline to regard Petty and Hermann and von Thünen and Jevons as classical, but not Mill' (Marshall, in Pigou 1925: 374). Marshall had written a careful defence of Mill's theory of value in 1876, which argued that much of that work had to be 'supplemented' but that much is 'in the main, sound as far as it goes' (Marshall, in Pigou 1925: 121).

5 The reference is to Chapter 30 of the *Principles*, where Ricardo is said to 'speak of the ratio between supply and demand as regulating prices in some cases', an erroneous statement which is corrected by Mill's remark that there 'cannot be ratio between such heterogeneous quantities as a supply and demand in Ricardo's sense' (Whitaker 1975: I, 129). It is interesting to note that Marshall marked this passage in his copy of Mill's *Principles* and noted: 'This is distinctly the position of Ricardo. See ch. XXX on Value (Ricardo)'.

6 Marshall's copy of Ricardo's *Works* as edited by McCulloch has not been preserved among his books held in the Marshall Library at the Faculty of Economics and Politics, University of Cambridge. This library does hold his copies of Ricardo's letters to McCulloch, Malthus and Trower as published in the 1880s and 1890s, the first being a presentation copy from its editor, Jacob Hollander, dated 10 May 1896. Marshall's copy of the Bonar edition of the letters to Malthus bears 'annotations'

largely in the form of pencil markings which emphasise passages and pages referred to in Marshall's *Principles* (1961: I, 813, 819). The holdings of early editions of Ricardo's *Principles* and other works held at the Cambridge University Library as part of the 'Marshall Collection' (Marshall, c20, c30, c31) did not belong to Marshall but to Sidgwick and Keynes respectively.

7 Marshall advanced no less than three reasons to explain Ricardo's predelictions for the abstract method. In the *Principles* he ascribed it both to Ricardo's semitic origins and to Bentham's influence on the economists of the early nineteenth century (Marshall 1961: I, 760, 761; cf. his inaugural lecture, in Pigou 1925: 153). The former argument is explicitly derived from Bagehot (1879: 197–8), the second probably from Toynbee's essay on Ricardo ([1884] 1913: 142–3). The third and more curious reason is given by Marshall in a subsequent work (1921: 674), where the taste for abstract reasoning is ascribed without any explanation to the 'temporary return of Europe, between 1790 and 1820, to a reign of violence'. An explanation for this remark can be found in Marshall's manuscript draft preface for *Money, Credit and Commerce*, written in 1917 and rescued from the wastepaper basket by his wife. Keynes (1925: 10) quotes part of this, leaving out the part dealing with Ricardo as irrelevant for his purpose. This reads as follows:

> But yet the science seems to progress steadily. What is known of it now, though only a small part of what needs to be known, is yet large relative to that which was known a hundred years ago when Ricardo's vigorous and trenchant thought had given it unprecedented prestige. The success which he achieved was perhaps partly due to the extreme urgency of the practical problems, which had been brought to the front of grievous destructions of wealth during the Napoleonic wars, and by hopes that seemed to be justified by the rapid advances in the arts of agriculture and manufacture of the preceding generations. But, though he, and his interpreter, John Stuart Mill, carried many of Adam Smith's best thoughts very far towards completion, they seem to have taken insufficient account of the difference between those truths which are valid only in regard to the stage of economic development in which they are made manifest, and those which are in great measure independent of time and circumstance.
>
> (Marshall Papers, Cabinet file 8, Miscellaneous Manuscripts, Marshall Library, University of Cambridge)

In spite of the peculiarities in Marshall's remarks on Ricardo's method, Marshall found this aspect of Ricardo's economics most attractive because it coincided with his own predeliction in viewing economics as an engine to arrive at concrete truths.

8 Another potential source for this view of Ricardo's reluctance to publish is McCulloch (1853: 476), which was cited in Dunbar (1887: 474) to which Marshall (1961: I, 813, n2) referred in this context. Such an interpretation can now be refuted from Sraffa's research (Ricardo 1951–73: I, xx) and the Ricardo-James Mill correspondence not available to Marshall. Marshall's view that Ricardo wrote mainly for 'businessmen' and that this explains his shortcomings in exposition, is repeated in *Money, Credit and Commerce* (Marshall 1923: 167). See also Gonner (1890: 287).

9 Cf. Marshall to L. L. Price (19/8/1892), where Ricardo is described as an exception to the general proposition that the substance of economic thought cannot be ascribed to the work of one man (in Pigou 1925: 379).

10 Marshall's interest in this evidence is still visible in the pencil marks and comments he made in his personal copies of the Ricardo correspondence preserved in the Marshall Library, where passages relating to demand in isolation, or to supply and demand, are invariably marked. See note 6 above.

11 Marshall gathered his textual evidence from the first section of Chapter 1 of Ricardo's *Principles* and the second paragraph of Chapter 4 (Ricardo 1951–73: I, 11, 12, 88) but gives no detailed page references to the chapter on 'Value and Riches'. This illustrates Hutchison's charge (1952: 423) that 'Marshall never quotes more than a couple of lines of Ricardo's words consecutively' though even this is an exaggeration. Apart from Marshall's quotes from Ricardo's correspondence with Malthus and passages from the *Principles* quoted in Appendix L, Marshall quotes *words* rather than lines from Ricardo. Marshall's argument on marginal and total utility in Ricardo is persuasively criticised by Stigler (1965a: 75–7) who concludes that it 'should be added to the list of examples of [Marshall's] peculiar documentation and interpretation of predecessors'. Hollander (1979: 279, n25) argues that 'Stigler's reaction to Marshall's interpretation' is 'rather too harsh' because 'Marshall was not far from the truth in this matter', but his argument in support of his criticism of Stigler is not convincing.

12 While discussing the measurement of general purchasing power, Marshall argued in the passage referred to that labour and corn were considered reasonable measures for that purpose in the times of Smith and Ricardo. He added that 'it is necessary to interpret "classical" doctrines as to value by reference to it'. Support for the association between Ricardo's Chapter 1 and measurement of the purchasing power of money is implied in Hollander (1904), to which Marshall referred in the *Principles*. Marshall's comment was probably inspired by Cannan's (1917: 305–6) argument that 'we are indebted to the Bullion controversy for the Ricardian theory of value … and that therefore Ricardo's interests were as practical as those of Malthus'.

13 For example, Jacob Hollander (1904: 455) implied that 'Marshall's distinct reappreciation [as was the case with other contributions] … in no small degree replaced textual study'. Hutchison (1952: 423) strongly implies that Marshall gives no hint of ever having studied Ricardo's preface to the *Principles*, which states his objectives so clearly and which differentiates them so strikingly from Marshall's aims (cf. Gonner 1890: 282, who highlights this objective of Ricardo's economics). It may be noted that the Marshall papers contain a draft reply to Ashley, presumably prepared for submission to the *Economic Journal*. Its thrust is that Ashley concedes what Marshall considered to be his major points in the interpretation of Ricardo on value: that Ricardo included interest on capital in value as a matter of course, and that Ricardo appreciated that his rule that 'exchange values will be proportionate to the amount of labour spent on them' is modified 'when there are differences in the proportions of fixed capital [and] in the rapidity with which the capital returns'. To Ashley's charge that 'Ricardo did not think these modifications touched the essence of his doctrine', Marshall replied that he had always admitted that 'it was very ill-judged' of Ricardo not to 'make continuous reference' to these modifications (Cabinet file 8, Miscellaneous documents).

14 Earlier work (for example, Marshall and Marshall 1881: 85, n1) had criticised both Mill and Ricardo on this subject, but in the *Principles* Ricardo is vindicated and J. S. Mill is not. Appendix L shows Mill's 'acute logical mind' to be 'unequal to the task' of correctly analysing the effects of agricultural improvements on rent, a clear example of the elevation of Ricardo and the downgrading of Mill in Marshall's published evaluation of their work as he grew older.

15 Marshall's interpretation of Ricardo's wage theory is vindicated by Samuel Hollander (1979: 555–7), but Hollander fails to note that Marshall never referred to Ricardo's doctrines of market wage determination and that, in general, he had a rather poor opinion of Ricardo's contributions to wage theory. See Marshall (1961: I, 550, n1; cf. his letter to J. B. Clark, 1 July 1900, in Pigou 1925: 413). In an earlier paper, Marshall (1961: II, 598–614) had stated that Ricardo 'had very little sympathy one way or the other with a desire to diminish the evils of poverty', and that he never acted as an 'earnest and fearless friend of the working class' (*ibid.*: 599).

16 Sraffa (introduction to Ricardo 1951–73: I, liii) comments on this passage in Marshall as an indication that Malthus was not the only person annoyed with Ricardo's habit of giving special meanings to common words.

17 Interestingly, both Barbour and Marshall are correct. The passage from Ricardo cited by Barbour (Q. 9840) on the silver standard is from his 1816 Proposal, section III (Ricardo 1951–73: IV, 73) in which Ricardo also argued that silver is preferred because of its more stable value. As Marshall correctly indicates, Ricardo's ingot plan proposed in the subsequent section was based on gold bullion in bars of 'not less than twenty ounces', although a footnote to this passage suggests that the weight is immaterial and there are good reasons for making them either ten or thirty ounces in weight (Ricardo 1951–73: IV, 66–7, 66, n*). In the Appendix to the fourth edition of his *High Price of Bullion* (1811), which was also published as a separate pamphlet, Ricardo had first proposed his gold ingot plan (Ricardo 1951–73, III, 124).

18 Marshall conceded the point because he had found it in a footnote to Ricardo's 1816 proposal (Ricardo 1951–73: IV, 67, n*) which he had not previously noticed and which he had looked up in the interval. It is ironic to note that Ricardo changed his mind on the matter in his evidence to a later House of Lords Committee on the resumption of specie payments (24 March 1819, question 36) where he stated that he now preferred gold as the standard because it had become 'the more invariable metal' as a result of improvements in the production of silver through the introduction of better machinery (Ricardo 1951–73: V, 427). Neither Marshall nor the members of the Royal Commission appear to have been aware of Ricardo's change of mind, though Marshall knew of the 1819 House of Lords Committee and referred to it (Marshall 1923: 67, 83, n1).

19 An example of the latter is Marshall's discussion of productive and unproductive labour (Marshall 1961: I, 65–67); another noted specifically by Stigler (1941: 63) is his 'unsatisfactory treatment of diminishing returns … capital theory and the marginal productivity theory'.

20 With Marshall in mind, Stigler (1965b: 449) has dubbed this 'personal exegesis' to contrast it with scientific exegesis which relies on the consistency of an interpretation 'with the main analytical conclusion of the system of thought under consideration' (*ibid.*: 448). It is interesting to note that in this paper Stigler illustrates these notions of exegesis by an example drawn from Marshall (1961: I, 833–4, 836) on whether Ricardo customarily assumed zero elasticity of demand for corn (Stigler 1965b: 447). As shown in the previous discussion of Marshall's Appendix L, where such an assumption is made on Ricardo's behalf, in order to validate his conclusions as Marshall implies, the question is never raised whether Ricardo had made such an assumption or whether it was a meaningful one in the light of his theoretical conceptions. Hollander (1979: 643–6) has defended personal exegesis *à la* Marshall.

21 In the various revisions of this chapter I have incurred debts to a large number of people, often at the various seminars at which a much earlier version was presented. I am indebted to the Librarian of the Marshall Library and the Faculty of Economics and Politics for permission to quote from unpublished Marshall manuscripts in their possession.

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# 19 Alfred Marshall and the history of economic thought

It is well known that Marshall inserted a considerable segment on the history of economic thought in his *Principles*. In the first four editions this was prominently placed in Book I Chapter 4, following the two chapters on the growth of free industry and enterprise; only from the fifth edition did it take the more subordinate place of Appendix B. Apart from this major shift of Marshall's sketch on the growth of economic science in the structure of the *Principles*, its contents themselves underwent relatively little change during the thirty years after 1890.[1] Marshall's objectives in this segment were not an attempt at history of doctrine but, by the inclusion of a view of the progress of the science, to instil into his readers an awareness of the relativity of economics and of the inevitable variations in human nature and institutions with which it was associated. The far more extensive 'economic history' which preceded the doctrinal history, it is also well known, was virulently attacked on its appearance by Marshall's Cambridge colleague William Cunningham, and this exchange assisted subsequent views that Marshall's work in no way can be described as that of a historian.[2] His history of economics segment has, to my knowledge, never been directly discussed from the perspective of Marshall's historical proclivities. The centenary commemorations of the publication of its first edition provide a good opportunity to do so and, more broadly, to examine quite generally, Marshall's changing attitudes to the history of economics.[3]

To achieve its objectives, this chapter first looks at Marshall's various views on the value of studying the history of economics. These are most clearly put in an unfinished paper written in the early 1870s. The chapter next examines the contents of Appendix B of the *Principles* for its historical and other perspectives in the light of the specific objectives it was assigned by its author. A further section, by way of a case study of his notes and published views on the Physiocrats, enables some testing of the claims Marshall made in a letter to L. L. Price (19 August 1892, in Pigou 1925: 378–9) and in reminiscences to Guillebaud (1971: 8) that in the early 1870s he had gone back in his reading, not only to Adam Smith but to authors writing on economics well before the *Wealth of Nations* was published. A final section presents some conclusions, including the question of whether Marshall exhibited better historical qualities in his discussion of the history of doctrine than have been claimed for his economic history. The aim of the chapter is therefore methodological, and does not claim to present an evaluation of Marshall's specific perspectives on particular economists from the past.

## I

As Marshall wrote to Price in 1892, 'in the early seventies when I was in my full fresh enthusiasm for the historical study of economics, I set myself to trace the genius of Adam Smith's doctrines' (in Pigou 1925: 378). This enthusiasm, as well as the requirements of his lectures, may have prompted him to write a more formal paper on the history and method of economics.[4] It sets out reasons why the study of the history of economics can be seen as very useful, an argument which takes its starting premiss from the position that such study of past doctrines is particularly fruitful in an immature science.[5] Marshall illustrated this with a supportive quotation drawn from D'Alembert:

> the more light we acquire on any subject, the less we occupy ourselves with the false or doubtful opinions which it has produced. It is only when one has no fixed and definite ideas with which one can occupy oneself, that one cares to enquire into men's opinions.[6]

Marshall developed this argument by providing three separate reasons why he considered study of previous economic literature important at the present stage of the science's development. It is interesting to note in this context that his emphasis on individual reasons tended to change over time, as did the degree of his adherence to the belief in the necessity for studying the history of doctrine. Such change is attributable to his growing faith in the scientific solidity of the new economics he was helping to forge, as demonstrated to him by the very favourable reception his *Principles* was receiving during the first decade of its publication.

Marshall's first reason for studying the history of economics is so concisely put that it can be quoted in full:

> *Firstly*, such a study is likely to aid our advance as regards the abstract theory. The observing of how other people have been led into error guides us to know how we ourselves have been misled. The tracing the mode in which confusions have been cleared up gives us hints as to the mode in which we should seek to resolve those difficulties which remain.
>
> (Marshall 1870: 3)

This reason is straightforward and requires no further comment. Marshall's second reason is more interesting, as it justified careful study of classical authors in the special sense in which he defined such authors.[7] Marshall's development of this reason is interesting. He insisted that the value of study of the classics is enhanced when done at first hand. If, on the other hand, such authors are studied from 'crambooks', their characteristic of producing 'living thought, energising, fertile in hope, enticing' to further work, becomes transformed into one of representing mere 'dead' fact. That can yield no inspiration, 'unless indeed we have a large store of creative energy in our minds' (Marshall 1870: 3–4). First hand acquaintance with the classics does have an opportunity cost: 'a man may not have time to read all the important discoveries in political economy in the words in which they were first communicated' (1870: 5).

However, more than time is required to enter fully into the world of ideas created by classical writers such as Adam Smith. Reading the classics demands considerable effort on the reader's part. In this context, Marshall partly advocated what would now be called a contextual reading, although in his actual practice this is flawed by his strong belief in the cumulative nature of economic knowledge, in which error is knowable, and is gradually supplanted by truth. The following remark illustrates this. Since an author like Smith cannot himself be asked as to the reasons for the stress he placed on particular points,

> we must find out for ourselves. That is, we must know what errors were just extruded and through their closeness to the mind's eye, appeared to occupy an unduly large space: we must know also what errors were in the process of extrusion and thus sometimes appeared in the place of those half grasped truths which were but gradually supplanting them.
>
> (Marshall 1870: 5)

> The third great use of a study of this history of the doctrines of political economy, is that we may understand the social and political phenomena of the periods in which they were held. Our knowledge of economical doctrines and of economic phenomena must go together and the economical and all other social and political phenomena of a period are inextricably interwoven with another.
>
> (Marshall 1870: 5–6)

This argument points to more than just the realisation that economic thinking is relative to the problems and institutions of an age. It also highlights the need for students to be aware of the influence of general economic circumstances in a particular period if that era is to be properly understood. Marshall was convinced of the fact 'that the history of economical phenomena is immensely important' for a full appreciation of history 'in its highest and most real sense – the account of man's aims, of his spiritual life, and the life of his moral nature, and also as inseparable from these, the development of his intellectual faculties'.[8] In short, doctrinal history is interdependent with history in general, the one informing the other. Marshall explores this aspect of history more fully in the remainder of his unfinished paper.

This detailed discussion is designed to show that 'anything like a theory of political economy can scarcely be said to have existed before the end of the Middle Ages' because the economic problems of such ancient times are so far removed from contemporary problems that the technical resources of modern economics are simply not required. This position on the timing of the origins of economic science also forms the starting point for Marshall's published views on the progress of economic science in Appendix B of the *Principles* (Marshall 1920: 754–5). Its rationale is, however, more fully explained in the 1870 paper. There Marshall raised questions such as why there was no theory in these early times, and how the people then living got by without theory, the answers to which questions

> will guide us in drawing lessons from the history of past ages, for the guidance of the present age – an age in which some sort of economical theory is involved in probably the greater part of the questions that most interest us.[9]
>
> (Marshall 1870: 7)

Marshall's own attempt at answering these questions involves an analysis of the economies of the ancient civilisations before Christian times which, following Kautz (1860: 51), are argued to display a unity in important aspects of their social framework. These include the then universal 'omnipotence of government' and a lack of individualism, particularly with respect to 'individual freedom and equality'. Marshall ascribes these characteristics to the fact that in these civilisations man has not learnt to revere himself as man (Marshall 1870: 9, an explanation specifically attributed to Hegel). Marshall continues the argument by examining features of the oriental world of India and China which suggest to him reasons why economic science could not have been developed by these societies.[10]

The case of Indian society is particularly instructive for Marshall because its objective intellectual and social characteristics preclude scientific thinking on matters economic. Hindu speculative thought is said to 'shun material activity' and to display a 'philosophical contempt of wealth'. Organisation, government, self sufficiency, hereditary nature of trade and occupation, and customary village prices including rents all suggest to Marshall the existence of a dominating rule of nature and the absence of any recognition of 'moral freedom and freedom of choice'. Social position and distinction (caste) in India are assigned by nature (birth) and not individually chosen, hence a division of labour depends on the custom of caste, just as, in Plato's *Republic*, it depends on the wishes of the state. Furthermore, Indian religion confirms these customary arrangements, rather than sanctioning departures from them, as the Christian religion is said to have accomplished by its emphasis on human equality before an almighty God, irrespective of earthly rank.

The main causes why India is argued to have been unable to develop an economic theory are summarised by Marshall as follows:

> *Firstly*, the absence of competition, prices and generally of systematised trade. *Secondly*, the relegation of material employments to a lower class,

> shut off from all converse with the thinking class. *Thirdly*, the slight esteem in which riches were held by the thinking class, and this for various reasons (a) the position of the thinking class was made for them, while the mental energy of the middle classes of Modern Europe is largely devoted to bettering their position by means of wealth (b) the contemplative character of their religion, inconsistent with their anxieties about wealth (c) the general insecurity which … rendered the philosopher unwilling to place any large portion of his happiness within the control of the fickleness of circumstances. *Fourthly*, the habit of treating questions as a whole, not analysing them. This, the characteristic of all ancient science or absence of science, was eminently so of Indian thought.
>
> (Marshall 1870: 14)

Marshall argued that similar results applied to Chinese conditions, but he noted some differences. Although the Chinese are said to display the same 'contempt of wealth and luxury' (a not unadmirable quality in Marshall's view) they nevertheless developed a perception of the advantages of the division of labour and domestic trade because these were able to provide the population not only with 'the necessaries of life … [but also with] some of its comforts' (Marshall 1870: 16). On the basis of Kautz's work, Marshall concedes that in more modern times the Chinese developed more sophisticated discussions on matters like 'the advisability of a high rate of interest' and the advantages of using paper money, while he notes that domestic trade and communications were accorded considerable importance.[11] Marshall's discussion of the Chinese nevertheless concludes with an assertion derived from Hegel that routine and custom rather than free choice prevented the development of this work by the Chinese into a consistent social science.

In the final pages of this manuscript, Marshall reflects on the higher stages of development achieved by the Persians and the Jews relative to India and China. This was due to the influence of a higher form of religion, a perspective for which Marshall once again acknowledged Hegel. Religion facilitated virtual 'deification of agriculture' and the creation of laws which demanded charitable giving to the poor from the land's net produce. Hebrew precepts from the Old Testament, so strikingly similar in Marshall's view to those developed by Confucius and Zoroaster, are likewise designed to praise domestic virtues, venerate agriculture and condemn both avarice and the 'vanity of riches'. In this context Marshall notes similarities between Jewish law and the 'wild Utopia for modern Communists', particularly with respect to the inalienable share of all in the land, secured through the institution of the Jubilee year. Again following Hegel, Marshall associates the exclusive relationship between Jews and their god with that insularity which gave them a narrow commercial spirit, 'at once a by-word and the most important agency that has existed for rendering true the economical theories which assume as a preliminary basis that Man is a prudent trader, uninfluenced by any other desire than that of gain' (Marshall 1870: 20).[12] The paper breaks off on the interesting point that the history of the Hebrews is mainly of importance to the modern political economist because it demonstrates 'how he or any other theorist may be rendered superfluous by universal belief in the continuous occurrence of the direct intervention by word and deed of the Divine Ruler' (1870: 20–1).

It is a pity that Marshall did not complete this early essay on the history and method of economics by extending its coverage up to the end of the Middle Ages. It would be interesting to have seen his argument on how the development of a modern economic science was made possible by the combined impact of the major sea route discoveries, the Renaissance, and the Reformation. His conclusions on lessons to be drawn from investigations of early societies in their economic aspects would also have made interesting reading. However, the 1870 paper does explain why, over thirty years later on 6 February 1902, Marshall could write to John Neville Keynes (Marshall Library 1 (126): Keynes letters) that the tendency in Germany, where 'even academic students have almost abandoned the study of the history of economic theory … goes to the opposite extreme', compared with attempts to make its study compulsory for economic students as was then being suggested for the new economics and politics tripos. For Marshall, study of the history of economics by means of careful reading of its classics was, generally speaking, a not-to-be-neglected part of the economist's education.

## II

Marshall's Appendix B is the one and only published version of his general view of the growth of economic science, although there are some remarks on that growth in the nineteenth century in other published work (e.g. Marshall 1885; 1897). As already noted, Marshall did not see his sketch of the growth of economic science as history. It was intended to emphasise that economic problems are 'not mechanical but are concerned with organic life and growth', and that the past can only inform the present when changes in the human situation and human nature are fully accounted for. As the text of his 1870 paper on the subject indicated, the social conditions of India and China, but more generally those prior to the late middle ages, precluded development of a modern economic theory. The conditions for this were only created by the virtual conjuncture at the end of the fifteenth century of the sea discoveries with the intellectual and scientific possibilities opened up by the Renaissance and Reformation which mark the beginning of Europe's modern historical era. In Appendix B, this view on the association of human ideas and the whole of the human experience from which they arise as an ontological notion is explicitly associated by Marshall with Goethe, Hegel and Comte (Marshall 1920: 764) and it forms, as it were, the basis for Marshall's stadial account of the growth of economic science. In what follows, the stages of that growth are made explicit, because Marshall himself only implicitly developed a stadial view by his division of Appendix B into subsections. Such an explicit stadial presentation also enables an overview of the contents of this appendix which highlights some of its more interesting features.

Given Marshall's argument that no economic theory was possible before the end of the Middle Ages, his first stage in the growth of economic science arises with a broadly conceived mercantilist literature. Marshall's awareness of the breadth of this generalisation is illustrated by his acknowledgement, for example, of a separate branch of cameralist writings within this literature (Marshall 1920: 755, n1). Marshall partly portrayed this first stage as a force assisting the move to greater freedom in industry and enterprise because of its growing criticism of the detrimental consequences of regulation and custom. Regulation and custom were earlier depicted by Marshall as factors responsible for shackling economic relations during the feudal period and before, hence explaining why it was impossible for this era to develop an economic science based on individualism and free choice. Starting a sketch of the growth of economic science with mercantilism as a body of deregulatory ideas thereby associates the whole of that growth with what Marshall presented as the key development in economic society during the period: the drive towards free industry and enterprise which he sketched in Appendix A.

Physiocracy as the first serious attempt to form an economic science is depicted as the next stage.[13] Despite this praise of the Physiocrats, Marshall argued that their contributions to a theory of free trade and their concern with the amelioration of poverty through raising general living standards, were more than offset by detrimental features in their work. Most important were their confusions between what would now be called positive and normative economics. Hence for 'this and other reasons, their work has but little direct value' (Marshall 1920: 756).[14]

The third stage, 'and perhaps the greatest step that economics has ever taken' is marked by the publication of Smith's *Wealth of Nations*. In contrast to the two preceding stages,[15] this constitutes the work of an individual and not of a school. Although Marshall notes that important additions to economic theory had been made by Smith's eminent contemporaries Hume and Steuart, and that he had benefited from the knowledge he gained of French economics during his tour of France,[16] the combination of the fact that he is more frequently 'nearly right' than any of his predecessors and that he was the first to write a treatise on wealth in all its social aspects, entitles him 'to be regarded as the founder of modern economics' (Marshall 1920: 757). However, irrespective of these individual merits, Smith's important contribution only opened up the 'wide field of economic enquiry' by combining and developing the work of his predecessors (especially on value),[17] a great deal of which had to be refined and improved, if not corrected, by his successors. Hence, despite Smith's care in presenting his views, the enormous authority of the *Wealth of Nations* could nevertheless be quoted 'in support of many errors, though, on examination, he is always found to be working his way towards the truth' (1920: 758).

Before discussing the essentials of the fourth stage, Marshall drew attention to an important aspect in the growth of economic science in the modern era:

the work on statistics and the gathering of facts which coincided with the improvements in theoretical work. The work by Petty, King and Davenant (the last not mentioned in the 'historical' sketch but cited elsewhere in the *Principles* in that capacity) illustrates this factual movement in the seventeenth and early eighteenth century. The immediate followers of Adam Smith are described as largely engaged in 'historical and descriptive' work. Marshall's examples are Arthur Young's agricultural economics and, though not mentioned, the collection of price data which Marshall admired and had used elsewhere; Eden's work on the poor and his collection of worker household expenditure budgets, as well as Malthus' increasingly more extensive, empirical, demographic work (Marshall 1920: 759–60). In his 1905 Michaelmas lectures Marshall went so far as to describe Malthus as the founder of the historical school because of his excellent material on wages in the *Principles* (Layton 15[6], Trinity College Library, Cambridge). In the middle of the nineteenth century, the heirs of this tradition are represented by Tooke, McCulloch and Porter.[18]

The fourth stage in the growth of economic science identified by Marshall, is that of abstract economic theory. This stage was initiated by the very influential Bentham, carried to its greatest heights by Ricardo, and continued to a certain extent by Ricardo's more 'able followers' (Marshall 1920: 760).[19] Money and trade theory are identified as areas where this abstract and ahistorical approach was seen as doing 'least harm', but for other branches of the subject their methods and findings are compared with the imposition of English law on the Hindus, a well intentioned but misguided enterprise (1920: 762). Lack of appreciation of the interconnection between economic ideas and changing institutions, especially the habits and institutions of industry, provide one explanation for this. Furthermore, Ricardo and his followers failed to see the relationship between poverty's causes and consequences, and they generalised all too easily on the basis of a constant, and simplistic, picture of human nature derived from their views on the nature of 'city men'. This induced a 'mechanical; and regular action' into their theory, especially into their theory of supply and demand (1920: 762–3).

The fourth, and abstract, state of the growth of economics generated two countervailing, interdependent, forces. Notions of humanity were introduced into economic discourse by the socialist writers from France, Germany and England, in whose 'wild rhapsodies there were shrewd observations and pregnant suggestions from which philosophers and economists had much to learn' (Marshall 1920: 763).[20] Some fruits of this socialist thought can be seen in the work of Comte, while 'the crisis of John Stuart Mill's life' which was so influential on his later work, owed much to these socialist writings.

Almost simultaneous with the rise of the socialist movement, the early part of the nineteenth century also produced an enormous interest in the social, as distinguished from the physical sciences, inspired largely, but not exclusively, by the work of Goethe, Hegel and Comte.[21] These writers emphasised the association between scientific ideas and the human environment which produced them, and showed that the variability of human institutions and human nature ensured a limited validity for the findings of the social sciences. Developments in biology, particularly those associated with the evolutionary theories of Charles Darwin and Herbert Spencer, raised 'the tone of the moral and the historical sciences' from the late 1850s onwards.

During the middle of the nineteenth century, the abstract economic theories inspired by Bentham and executed by Ricardo and his followers, and the fruits from the movements which it had inspired – that is socialist-humanist values and the relativity of the social sciences enriched by the findings from biology – merged together in the mature writings of John Stuart Mill. His *Principles of Political Economy* can therefore be seen as marking a new stage in the progress of economic science. More broadly, but still separated in their individual development, these movements can also be seen reflected in the experience of German economics in the middle of the nineteenth century, producing its great theorists (Mangoldt, Hermann and von Thünen), its major historical economists (such as Roscher, Rau, Knies and Schmoller) as well as significant socialist humanist writings (Marx, Lassalle, Rodbertus).

The modern, contemporary stage in the growth of economic theory has further improved on this blend of the varying movements (as represented in the work of Mill and German economics). This is very visible in the contemporary English and international contributions to economics. Marshall explains these improvements in English political economy by three factors. Evolutionary theory gave a greater awareness of 'a higher notion of social duty'; there was greater accessibility to factual and statistical material; and third, there was wider use of more exact analysis with far more precise indication of the assumptions required. In combination these provided a better 'machinery' for analytical thinking, with the result that economics is

> surely … but slowly becoming more scientific and much less dogmatic than [that produced by] those good and great men who bore the first brunt of the battle with the difficulties of economic problems; and to whose pioneering work we owe our own more easy course.
>
> (Marshall 1920: 766)

The sketch of the progress of economics concludes by drawing attention to contemporary international developments. These demonstrate how healthy the present state of economics is as compared with that of previous decades, though there is still a great deal to do. For example, the French school has moved on to greater heights from the base established by its eighteenth-century thinkers, not only illustrated by the socialist writings it has produced but by the 'constructive thought' of Cournot as well. Renewed economic vigor is likewise being shown in 'the old homes of economics' of Holland and Italy. German economics, as already indicated, has invigorated all forms of economic thinking, albeit sometimes with a too nationalistic stance. In America, an economics initially confined to the narrow protectionism of H. C. Carey and his followers, has now generated many diverse schools of thought which show 'that America is on the way to take the same leading position in economic thought that she has already taken in economic practice' (Marshall 1920: 766). Prophetic words indeed!

The best aspects from this picture of the growth of economics provide the clue to the manner in which its future progress should be directed, as Marshall indicates in the strong methodological, final paragraph of his historical sketch. Its concluding sentences are worth quoting:

> The modern economic organism is vertebrate. It should have that delicacy and sensitiveness of touch which are required for enabling it to adapt itself closely to the real phenomena of the world; but none the less must it have a firm backbone of careful reasoning and analysis.
>
> (Marshall 1920: 769)

As Marshall openly admitted (Marshall 1898: 44–5), his sketch of the growth of economic science was designed to convey a specific message to its readers, a message sufficiently important for it to be separately imparted to his students. When Arthur Bowley, for example, attended Marshall's lectures on political economy in 1891 he was treated to its subject matter in the first four lectures (Cannan Papers 909: 3–10, British Library of Political and Economic Science). As so often the case with Marshall's writing, this message was wider than what had been explicitly assigned to it. First of all, there is its direct linking with the subsequent two methodological appendices through the manner in which the story of the growth of economics unfolds. Furthermore, there is a strong emphasis on a scientific continuity in economics, reflected in the way it has managed to steadily accumulate truth from the late Middle Ages and to discard both dogma and error. Its various stages therefore not only reveal the relativity of its content as influenced by changing environment and institutions; they reveal likewise the type of progress to gradual perfection which in Marshall's epistemology forms the hallmark of a useful and well developed science. Whether this can be called history is assessed more fully in the final section, after the evidence from a more detailed examination of Marshall's specific historical practice can be taken into account.

## III

Marshall's analysis of the Physiocrats, or, more correctly, of Quesnay's work,[22] forms a useful case study for assessing the approach he used during the 1870s to study the work of early writers. Here it is possible to combine the contents of Marshall's published opinion on the writings in question with the surviving manuscript notes he made, supplemented by the information available on the contents of his library.

Quesnay's work, and even more that of the Physiocrats as a group, are accorded a substantial number of references in the *Principles*. Marshall's views of their major contribution to the establishment of a modern economics have already been noted in Appendix B (Marshall 1920: 967–8); their cosmopolitanism is favourably contrasted with German *nationaloekonomie*. The Physiocratic concept of productive and unproductive labour is rightly explained in terms of agricultural labour's ability to reproduce with a net surplus (1920: 65, n2). Their capital analysis is, this time quite wrongly, described as 'very much in the sense in which Adam Smith and his immediate followers defined Stock to include all accumulated wealth' (1920: 787). Physiocratic belief in the subsistence wage is correctly identified as the crucial assumption for their tax incidence theory (1920: 506, n1), is associated with their habit of confining working-class consumption to strict necessities (1920: 530, cf. 68) and is also depicted as highly relevant to their population theory (1920: 176, n1).[23] Finally, their explanation of rent is represented, not quite accurately, as a form of 'producer surplus' owing to 'the bounty of nature' (Marshall 1920: 632). Most of these published views on their work in the *Principles* can be traced to notes Marshall made about their work during the 1870s.

The only other published[24] references to the Physiocrats are made in *Industry and Trade*. After noting their contribution to the doctrine of *laissez-faire, laissez-passer* and discussing its meaning in the context of Colbert's regulatory manufacturing policy and the need for domestic free trade, Marshall highlights their political naivity. Quesnay is described as 'simple minded' when compared to Adam Smith because of his 'sanguine' views about the 'moral integrity of statesmen'. Physiocratic belief in 'absolute government instructed by the Philosophers' as the best way to make the people at large follow the practice prescribed 'in the new principles', is portrayed as rather ridiculous, though Marshall noted that this belief may have rested on an opinion implicitly ascribed to the Physiocrats that 'democratic' nations are 'often harder than an autocratic ruler would be' (Marshall 1927: 742–4, 743, n3). For good measure, Marshall began this unflattering account of Physiocratic economic policy by drawing attention to Hume's 'impatience with the confident dogmas of the Physiocrats' (1927: 741, n2). Much of this is also traceable to Marshall's notes of the early 1870s.

Before commenting on these notes, something needs to be said about Marshall's access to the works of the Physiocrats. The printed catalogue of the Marshall Library (Marshall 1927: 68) lists the 1894 reprint of the second 1758 edition of the *Tableau économique* produced for the British Economic Association as well as the Oncken edition of Quesnay's economic and philosophic works first published in 1888. There is no evidence that Marshall used either of these to any significant extent in formulating his views on the Physiocrats in the *Principles*. The notes indicate that Marshall drew most of these views from secondary sources: Austin's *Lectures on Jurisprudence* (1869), de Tocqueville's analysis of the *ancien régime* and the French Revolution in his *France before the Revolution* (1955 [1851]), W. L. Sargant's *Recent Political Economy* (1867), L. Lavergne's *Les économistes français du dix-huitième siècle* (1870) and Travers Twiss' *Progress of Political Economy in Europe* (1847). In a letter to Foxwell (31 July 1878, Freeman collection 36/155) Marshall mentioned that he had read Daire's collection of the Physiocrats in the University Library alongside Lavergne's book. He appears also to have known Du Pont's edition of Quesnay's writings (*Physiocratie, ou constitution naturelle du gouvernement le plus avantageux au genre humain*). Whether his reading of Daire extended to work by other Physiocrats such as Mercier de la Rivière is difficult to say. The high praise this book received from Adam Smith (1976: II, 697) may have encouraged him to do so. Marshall's notes on the Physiocrats also drew on a French economic dictionary.

Marshall's material on the Physiocrats in *Industry and Trade* seems to have been largely inspired by Austin's account of their views on government. This compared them with Hobbes' views. Marshall's notes on Austin's *Lectures* are included with his notes on the Physiocrats preserved in the Marshall Library. Austin's account (1869: 289–90) emphasised the Physiocratic prerequisite for good government of adequate knowledge of the principles of political science in the general population to be secured through education. This has to be combined with the presence of a ruling elite well versed in the principles of good government. A despotic government, enlightened and guided by these principles, was their preferred government form because this could most easily secure the necessary reforms to establish the natural and social order. However, as Austin pointed out, in a state of ignorance, a possibility never to be ignored, a despotic government would be a disaster and more popular forms of government would be preferable. In his criticisms of the operational content of Physiocratic policy, Marshall needed to add only two ingredients to the material he had taken from Austin. His use of Hume on the Physiocrats in *Industry and Trade*, as noted previously, was probably acquired from the fragments of Hume's correspondence appended to Ashley's edition of the *Reflections* (Ashley 1898: esp. 101–12). Marshall's emphasis on Quesnay's naive trust in politicians was probably induced by the contrary opinions of Adam Smith on this subject to which Marshall drew attention, and perhaps from the extracts of the *Secret Court Memoirs of Louis XV and Louis XVI* (Mme de Hausset: n.d.)[25] likewise included with his extant notes on the Physiocrats.

The material on the Physiocrats in the *Principles* also appears to have been largely derived from the earlier notes without much revision. Marshall placed great emphasis in his notes on the proposition that 'Physiocratic theory would be roughly true if all but Proprietors were actually at starvation level, i.e. if the artizans should they get less real return to their labour would instantaneously die and the farm labourers also'. This assumption was particularly important for their theory of taxation and the underlying theory of distribution. Extracts from Quesnay's *Encyclopédie* articles (Quesnay 1756; 1757) taken by Marshall from his readings in the 1870s emphasise his rural cost accounting (and national income accounting) and presumably impressed Marshall sufficiently to include samples in his notes. His notes on Quesnay's analysis of costs warranted his inclusion of the Physiocrats with Harris, Cantillon, Barbon, Petty and Hobbes among the forerunners of Smith on the relation of 'value to cost of production' (Marshall 1920: 759, n1).

In the notes, Marshall dismissed Sargant's (1867: 14) view that 'frugality was the leading notion of the school' because he could find no evidence for this opinion. His notes on Lavergne's extensive quotations from Quesnay's 'economic maxims' enabled Marshall to make further comments on this aspect of Quesnay's work. In connection with Maxim 21 (Quesnay 1758: 124) he noted that Quesnay saw saving as sterile because it impeded circulation (a view opposed by Turgot, as Marshall noted from Daire's introduction to Turgot's works). However, Marshall grasped that Quesnay's view does not amount to straightforward underconsumption. Luxury of ornament, channelling demand to sterile manufactures and imports is what Quesnay condemns; capital accumulation and demand directed at *luxe de subsistence* enliven both agriculture and economic activity in general. Such links were easily grasped by one whose incipient views on business fluctuations drew on the income effects of harvests on the level of economic activity in general, *à la* Bagehot (1873: ch. 6).

Marshall also studied the *Tableau économique* in its final *Analyse* form (Quesnay 1766). Marshall's notes reproduce its famous diagram indicating the aggregate transactions between classes and productive sectors, the meaning of which he summarised as follows:

> The productive class has two milliards in advances. It produces 5 milliards worth of raw produce. Of these, it gives one milliard in the form of material to the artizans, receiving in exchange manufactured commodities worth one milliard.
>
> The artizans have one milliard in advance which they consume, & the value of their produce one half due to their labour, the other half due to their materials is the two milliards [of annual artizan production]. One of these as already seen they give to the productive class in exchange for materials, the other they give to the proprietors for one milliard of raw produce which is what they have in advance for the next year. The Proprietors have as rent two milliard of raw produce, one of these they consume, the other they exchange for one milliard worth of manufactures with the artizans. The artizans thus seem to be the only people who consume no manufactured produce but this difficulty can be overcome by assuming them to have time to work up say a milliard & a quarter of raw materials & that consequently their real wages are more than a milliard.
>
> (Marshall, History of Economic Theory 1, Marshall Library, Box 5, Item 6)

A number of features of this simple account of Quesnay's (1766) *Tableau* can be highlighted. First, Marshall interprets it in terms of barter, whereas the *Analyse* was specifically designed to highlight monetary problems in terms of the quantity of money necessary to effect a good circulation, and to ensure a proper distribution of annual product among the various sectors (classes). Second, Marshall gives the proprietors an entrepreneurial role in enabling them to make advances to the artizans, a presumption in conflict with Physiocratic theory, where the proprietors have an initiating role in consumption and the direction of demand, but little to do by way of organising production. In addition, Marshall appears to have grasped little of the potential of this analysis for analysing the process of economic growth; for the study of structural interdependence and for its inherent conception of a general productive and exchange equilibrium. In fact, when he re-read these lecture notes after an interval of at least a decade (as can be judged from the change in his handwriting), he marked this material on the *Tableau économique* as 'not important'.

Marshall's inadequate appreciation of the *Tableau économique* explains his failure to grasp the major influence the Physiocrats exerted on Adam Smith's explanation of the second cause of the wealth of nations, that is, the proportion of the labour force employed in productive labour.[26] Nor did Marshall perceive the substantial Physiocratic influence on Smith's capital theory, so far as Book II, Chapters 1, 3 and 5 were concerned. In fact, Marshall did not really seem to have realised the significance of Quesnay's contributions to capital theory. This is revealed by his comments on maxim 15 or Quesnay's extract of the royal maxims of Sully dealing with 'grande et petite culture', which only dwell on its importance for the relationship between gross and net produce, thereby demonstrating an inability to grasp the significance of Quesnay's emphasis on capital as the main source of increased agricultural productivity. By lumping the Physiocrats and Smith together on the conception of capital, Marshall (1920: 787) also failed to note the immense superiority over Smith of the Physiocratic distinction between fixed and circulating capital in terms of the period of production, a principle of classification Ricardo had to rediscover for himself.[27] Marshall's remarks on Physiocratic influence on Smith are confined to the role assigned to agriculture in economic development, as well as some aspects of Smith's theory of rent (Marshall, A. Smith, I, II, III, Notes on the *Wealth of Nations*, Marshall Library Box 6, Item 3). His notes on the impact on Smith of his visit to France are based on Sargant's (1867) inadequate account, and neglect Cannan's later and far superior comments from the introduction to his edition of Smith's *Lectures*.[28]

The preceding discussion of Marshall's views on the Physiocrats not only enables critical comments on his inadequate perception of the significance of some of their arguments, it also suggests an ahistorical perspective in this interpretation. His views on Physiocratic capital theory, perhaps their most significant breakthrough, provide the clearest example of this tendency on Marshall's part. Marshall's lack of appreciation of this point, arising from his ignorance of the poverty on this subject in previous writers, constitutes a major historical failure. Another illustration of such failure concerns a neglect to revise the extent of their impact on Smith in the light of Cannan's new research. Last but not least, his practice with respect to Physiocratic writings reveals an uncritical attitude to sources, reflected in the heavy reliance on secondary sources even when original texts such as the works edited by Oncken (1888) and the 1894 reprint of the 1758 *Tableau* became available to him. Careful evaluation and selection of historical evidence, which constitutes a major part of the art of the historian, was a skill in which Marshall showed himself to be not well versed in his discussion of the French economists.

## IV

Conclusions from this discussion of Marshall's uses of and preferences for the study of the history of economic thought are relatively straightforward. As demonstrated in this paper, he saw first-hand knowledge of the classical authors as a prerequisite for a good economics education, for the reasons enumerated in his unpublished 1870 paper. Although on that, and on other occasions, he argued that such practice was the sign of an immature science, while acquisition of such knowledge in addition demanded a great deal of time, the task was on the whole worthwhile because study of the classics improved both theory and factual understanding. This does not mean that Marshall endorsed antiquarian emphasis in the study of past theories, a matter on which he quarrelled with Foxwell (see Foxwell 1939: 9). As shown in his letter to J. N. Keynes in the context of the role history of theory was to play in the new economics tripos, only the contemporary German practice of dropping such studies altogether was something to be deplored. In short, Marshall's support for this type of study in economics never disappeared, even though his youthful enthusiasm for it had already vanished by the end of the 1870s (cf. Marshall to Foxwell, 3 July 1878, Freeman collection, 36/155).

An associated conclusion can be derived in this context. Marshall's interest in studying the classical literature was pedagogic rather than inspired by an historical interest *per se*. This applied especially to his account in the *Principles* of the growth of economic science. These pedagogic objectives included at least the following. His explicitly acknowledged objective was to make readers of the *Principles* more aware of the relativity of economic theory and the liability of volumes such as his of losing their applicability over time in the face of gradual changes in human nature and institutions. Second, the modern development of economics from Mill onwards, and particularly reflected in the experience of German economics in the nineteenth century, was shown to combine those features of the science which he deemed essential: sound theory, factual awareness in a wide historical setting and a broad human idealism of purpose in application of findings. Third, the growth of the science and its highlights closely followed the gradual growth of free industry and enterprise, in that from the beginnings of its modern development, economic science criticised excessive or unnecessary regulation and the detrimental impact of tradition and custom on economic life. Last, but not least, Marshall's sketch of the progress of economic science was designed to show the continuity in its development to which the preface to the first edition, repeated in all subsequent editions (Marshall 1920: v), drew attention in its reference to the 'slow and continuous growth … of economic science' in the context of constantly changing economic conditions. An epistemology of cumulative scientific progress and discarded error coloured Marshall's account of the development of economics.

Historical accuracy and sound historical practice not infrequently became a casualty in this approach to doctrinal history. An example of the former is the distortion of an author's ideas by the way in which Marshall presented them within the pages of the *Principles*. The paper illustrated aspects of this: for example, in Marshall's treatment of Physiocratic capital theory and of Smith's value theory, the interpretation of Smith on value being in part designed to show a remarkable continuity with Marshall's own doctrine. As demonstrated elsewhere (Groenewegen 1991: above, Chapter 18) Marshall's interpretation of Ricardo is an even stronger example of his ahistorical practice of making authors' views appear in the mould in which he wanted to cast them. Marshall's practice went beyond reading modern views into these authors, as Cunningham (1892) charged him with; it involved reading *his own* theories into such authors in order to preserve that picture of continuous development and improvement of their views of which his own perspectives were the outcome. Rather than giving the contextual reading of these classics which he had advocated in the 1870 paper, he transformed these classical ideas into what he wanted them to be in order to heighten the degree of resemblance with his own notions. On this score alone, Marshall cannot be described as a good historian of economic science and doctrine, an accolade which, in fairness, he never claimed for himself.

The case study of the Physiocrats revealed more serious historical shortcomings in Marshall's practice. His heavy reliance on secondary sources in studying their views and his failure to consider, let alone integrate in subsequent editions of his writings, new evidence when that became available, were documented in this context. The last failure does not only refer to Marshall's treatment of Cannan's work on Physiocratic influence on Smith in the light of his edition of Smith's lectures (Cannan 1896); it even more strikingly applies to the omission of any acknowledgement of the zig-zag version of the *Tableau* made available through its facsimile reprint by the British Economic Association in 1894 and obtained by him at the time. In addition, as he confessed in correspondence with Price (in Pigou 1925: 379), despite Foxwell's advice on the importance of Mirabeau's work, he had read nothing by that author just as, despite Smith's (1976) and Austin's (1869: 290, n) strong recommendations, he appears to have ignored Mercier de la Rivière's authoritative account of the Physiocratic system of natural and social order. Such an approach to the comprehension of the views of an important school of thought cannot be endorsed as good practice for a historian of economics.

Clapham's view that Marshall was not a historian, endorsed by recent research, can therefore be extended from the specific context of his economic history to his even more eccentric doctrinal history, bearing in mind Clapham's qualifications to this judgement. Just as Clapham praised Marshall's profound knowledge of factual material, particularly with respect to the recent economic history in which Marshall was especially interested, so Marshall cannot be charged with an ignorance of earlier economic literature. Unlike many of his contemporaries, and even more unlike economists of the present time, Marshall had read widely in the previous literature and knew how to use this knowledge to advantage for his own theoretical purposes. In addition, Marshall's account of the growth of economic science, irrespective of its historical shortcomings which have been noted, continues to offer useful insights to present historians of economics. His emphasis on the extraordinary influence of Bentham, and his wide international perspectives in expositing that growth, provide clear examples. Although therefore not a good doctrinal historian, his advice on the importance of knowing the classics combined with the emphasis he gave in his *Principles* to the growth of the science, make his effective contribution to the history of economics as a subject one of continuing value, and one for which doctrinal historians will continue to make references to Appendix B of his *Principles*.

## Notes

1 In an article in the *Economic Journal* (Marshall 1898: 44) Marshall quite fully explained his reasons for inserting this historical material. The aim of the historical chapters

> is to emphasise, as the keynote of the treatise, the notion that economic problems are not mechanical, but are concerned with organic life and growth. In combination with the following chapters on scope and method they claim to offer a view continuous with that of the classical tradition, but differing in this stress laid on this element of organic life growth. They claimed to show that the past can afford just guidance for the present and the future only when full account is taken of the changes in man himself, and of his modes of life and thought and work; and to sketch some leading features of those changes which are of most importance for the economist. They insist that, though there is a kernel of man's nature that has scarcely changed, yet many elements of his character, that are most effective for economic uses, are of modern growth.

This passage is reproduced in Guillebaud (1961: II, 63) which also demonstrates how few alterations between editions were made in the material which became Appendix B (see *ibid*.: II, 750–61). Most of these are minor textual alterations, sometimes involving changes in sources and only one of which can be attributed to the Cunningham critique in 1892 (see *ibid*.: 741; and note 2 below). On shifting this material, see also Marshall to J. N. Keynes (17/10/1897) in the Marshall Library, John Neville Keynes 1 (114).

2 For a discussion of this controversy, see Maloney 1985: esp. 102–3; Kadish 1989: 131. In a letter dated 1/8/1924 to assist Keynes in writing his Marshall memoir, Clapham mentioned this debate, concluding that Marshall's work in the *Principles* is poorer history than can be found in A. Smith's historical illustrations, and that, 'of course, Marshall was not a historian'. This letter is included in Keynes' Marshall File, now held in the King's College Library.

3 A preliminary discussion of some of these issues was given in my remarks on 'Marshall as Historian of Economic Thought' at the Marshall *Principles* centenary conference organised by Professor Peter Thal and Dr Simone Helle at the University of Halle-Wittenberg in June 1990. Revision of this paper has been assisted by useful comments from Barry Gordon, Pier Luigi Porta and Giacomo Becattini. I am indebted to the Master and Fellows of Kings College, and of Trinity College, Cambridge, for allowing me to quote from manuscript material in their possession, and to the Faculty of Economics and Politics for permission to quote from

manuscript material in the Marshall Archive, and to the Librarian, British Library of Political and Economic Science, for permission to quote from the Cannan Papers.

4 This paper of thirty-two pages of neat handwriting is preserved in the Marshall Library at Cambridge, Box 5 Item 1 (f). It has been reproduced in my series of reprints of Economic Classics and is referred to subsequently in this paper as Marshall 1870. See its introduction, esp. vii–xiv, for background.

5 In July 1894 he wrote

> That is most valuable to the world which is cumulative. From this point of view any branch of knowledge is to be primafacie condemned in which advanced students find it still profitable to read books written very long ago. E.g. Metaphysics as compared with Psychology.
>
> (Marshall Library Box 5, Item 1 (b) Miscellanea)

In the years following his B.A. at Cambridge in 1865, Marshall studied both metaphysics and psychology, the last with increasing enjoyment, the former with growing dislike. His antagonism to metaphysics came to the fore on several occasions during the 1890s in the debates over the reform of the moral sciences tripos. In lectures he gave in 1905, and attended by Walter Layton (Layton 15$^{6}$: 3, Trinity College Library, Cambridge), Layton recorded the following comment by Alfred Marshall pertinent to this discussion: 'Political Economy and Psychology are the only Mental Sciences in which we do not refer to the Greeks as masters'.

6 Most likely from D'Alembert's *Discourse préliminaire* (1805: 124–62), but the precise quote has not been identified. See Marshall (1870: 1, n1).

7 See his letter to James Bonar, 17/11/1898 (in Pigou 1925: 374), in which a classical author is defined as one whose ideas are 'architectonic … in thought and sentiment, which are in some degree his own, and which, once created, can never die but are an existing yeast ceaselessly working in the Cosmos'. Petty, Hermann, von Thünen, Jevons and Ricardo were classical in this sense according to Marshall, but not Mill.

8 The reference to history in its highest form is the first indication of the enormous influence Hegel's *Philosophy of History* exerted on Marshall while writing this paper, an indebtedness fully acknowledged in its many subsequent citations of Hegel's work. For a general discussion of Hegel's influence on Marshall, see Groenewegen (1990) [above, Chapter 12]. In the 1894 fragment on this subject (cited in note 5 above) Marshall mentioned that 'early economists may have a double claim [to relevance], as giving a knowledge of past theories and facts'. Cf. also his letter to Foxwell, 3 July 1878, which likewise stresses the importance of 'the history of economic phenomena' (Freeman collection, 36/155).

9 Cf. the similar sentiments expressed by John Austin (1869: 131) on the 'inestimable science of political economy, which is so interwoven with every consideration belonging to morals, politics and legislation, that it is impossible to treat any of these sciences without a continual reference to it'. Marshall had been studying Austin's Lectures at the time of writing this paper.

10 Marshall's order in treating India and China explicitly departs from that in Hegel's *Philosophy of History*, which treats China before India. This order is reversed by Marshall because of the results of more recent research on village communities (such as that by Sir Henry Maine) which Marshall had also been studying.

11 Marshall rejects as only 'half true' Smith's view that China's large size made its prejudices to foreign trade understandable by pointing to Roscher's position on the quite extensive nature of Chinese foreign trade at that time (see Marshall 1870: 17).

12 This may assist in explaining Marshall's views on Ricardo as a 'Semitic' economist (Marshall 1920: 761, n1). The parallel comparison between Hebraic law and 'wild communistic utopias' may have been the inspiration for Marshall's comment that German socialist thought was developed by writers 'some of whom have been of

Jewish origin' (Marshall 1920: 769). His examples are Marx and Lassalle, some of whose work he had studied intensively during the late 1860s and early 1870s.

13 Cantillon's *Essay*, though praised in a footnote (Marshall 1920: 756, n1) as 'acute and in some ways ahead of its time', is played down in importance as having been anticipated on important points by Barbon, but, characteristically, Marshall omits to note the specific points he has in mind. In his notes on the history of economic theory (Marshall Library Box 5, Items 6 and 7) Marshall copies large slabs from the first part of Cantillon's work. After unsuccessfully requesting a spare copy of Cantillon's *Essay* from Foxwell (Marshall to Foxwell, 7/1/83, 9/1/83 in Marshall Library, Box 3), Marshall acquired his own copy in 1889 (now held in Cambridge University Library, Marshall d.37).

14 Marshall's work on the Physiocrats is examined in more detail below in the third section of this paper. In his letter to Price (in Pigou 1925: 378–9) Marshall tells how later he became disillusioned with the importance of their work when he realised how much economics had been written before them.

15 Marshall is wrong on this point. Although the Physiocrats constitute a school, their theoretical contributions were substantially made by a single person, Quesnay.

16 As shown below in the third section of this paper, Marshall did not really grasp the major Physiocratic influence on Smith's work gained from this experience.

17 Smith's value theory is perceived as an unwitting anticipation of Marshall's own theory because it provided

> a clearer insight into the balancing and weighting, by means of money, of the desire for the possession of a thing on the one hand, and on the other of all the various efforts and self-denials which directly and indirectly contribute towards making it.
>
> (Marshall 1920: 759)

However, Marshall did admit that Smith's discussion of the relationship of value to cost of production (presumably thinking here of Smith's discussion of natural and market price) had been fully anticipated by the Physiocrats, and by English writers such as Joseph Harris, Cantillon, Locke, Barbon, Petty and even Hobbes (Marshall 1920: 759, n1). The first point illustrates Marshall's proclivities of reading his own, more modern theory into earlier writings, an ahistorical practice for which Cunningham (1892: 496) took him to task.

18 The last writer perhaps the source of inspiration for 'Giffen's hint' first added to Book III Chapter 6 from the third edition, and which has mystified so many commentators. See White (1987; 1990) [and above, Chapter 13: I, p. 203].

19 A detailed discussion of Marshall's connections with classical economics is presented in O'Brien (1990); an examination of Marshall's peculiar relationship with Ricardo's work can be found in Groenewegen (1991) [above, Chapter 18].

20 Marshall's wide acquaintance with these socialist writings is visible in his lectures on socialism and the functions of government (Box 5, Item 1 (e) in the Marshall Library). Among others, these discuss the work of Louis Blanc, Fourier, Proudhon, Saint Simon, Robert Owen, Marx and Lassalle.

21 Marshall's lack of systematic knowledge of the history of ideas is illustrated by the fact that he managed to overlook the enormous contribution made to this development of the social sciences in the eighteenth century by the writers of the Scottish Enlightenment and, more generally, the French Enlightenment. Insofar as his surviving papers permit such an inference, this period seems never to have been systematically studied by Marshall during his 'philosophical years' of the late 1860s and early 1870s. In addition, he appears to have had a marked antipathy to Hume (cf. his character sketch of Ralph Waldo Emerson, in Marshall Library, Box 6, Item

(1): 'U.S. Industry including notes on visits to American Manufactures and Character Sketches').

22 Marshall's evaluation of Turgot's work is excluded from this case study for reasons of space.

23 Marshall's only direct reference to Quesnay in the *Principles* apart from the remarks in Appendix B (Marshall 1920: 756–7) is made in this context and may be quoted. Quesnay's 'guarded but forcible protest' against excessive population is there cited as follows:

> one should aim less at augmenting the population than at increasing the national income, for the condition of greater comfort which is derived from a good income, is preferable to that in which a population exceeds its income and is ever in urgent need of the means of subsistence.

The source for this quote is not revealed.

24 An exception to this is a reference to Quesnay's abstract economics, comparable to Ricardo's, in the early 1870s manuscript on foreign trade, first published in Whitaker (1975: II, 85).

25 These provide anecdotes of the visionary nature of the Physiocratic reform programme. They therefore supplemented Marshall's views derived from Austin and from de Tocqueville (1955 [1851]). The last adds that implementation of the Physiocratic reforms could have prevented the French Revolution, a view to which the *Principles* (Marshall 1920: 176) also draws brief attention. The relevant extracts from Mme de Hausset were included in Oncken (1888), but Marshall had not taken them from this source.

26 This significance is demonstrated very clearly in Eltis' essays on Quesnay and Smith in his *The Classical Theory of Economic Growth* (Eltis 1984). Marx, on the other hand, was able to grasp this significance even though, as Marshall did initially, he had access only to the *Analyse* form of the *Tableau*.

27 Marshall did appreciate the pathbreaking work on capital theory by Turgot. He also appreciated Ricardo's sophisticated capital analysis (see his lectures in 1905; Layton $15^6$: 5–6, Trinity College Library, Cambridge).

28 Marshall was acquainted with this work (which had appeared in 1896) and cited it in the later editions of his *Principles* (Marshall 1920: 757–8, n2) on Hutcheson's influence on Smith.

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# 20 Alfred Marshall and Herbert Somerton Foxwell

## A tale of two libraries

For several decades from the 1880s, Alfred Marshall and Herbert Somerton Foxwell constituted the mainstay of Cambridge economics teaching, even though the first had originally been the teacher, and the second the pupil, in this economics teaching association at Cambridge. Both also shared the same college, St John's, and engaged in an extensive and fascinating correspondence, the greater part of which is now published (Whitaker 1996). The purpose of this chapter is, however, not to look at this long-enduring Cambridge partnership in economics teaching for the moral sciences, or at other features of their friendship,[1] but to briefly examine the libraries these two economists built up, and which 'both'[2] continue to make contributions to the study of economics. The first section of this chapter looks at Marshall's library, still part of, and the foundation for, the library of the Economics and Politics Faculty at Cambridge University which bears his name. The next section looks at Foxwell's substantial collections, which provided the core first for the Goldsmiths' Library, now at the University of London, and subsequently for an important segment of the Kress Collection housed in the Baker Library at Harvard, in that other Cambridge across the Atlantic. A final section draws some conclusions.

Those who know Arnold Heertje will immediately see the relevance of this topic to a collection of economic essays in his honour. Very much like Foxwell, but somewhat different from Marshall, Heertje has built up a magnificent library of the literature of economics, with emphasis on its early beginnings. Heertje's library, I venture to suggest, is the best such collection still in private hands, and it would easily vie with the libraries of Edwin Seligman, Lionel Robbins and Luigi Einaudi, to name but a few of the major collections in this field from an earlier part of the twentieth century. Given the enormous scarcity of this material, continually increasing from the expansion of public collections, Heertje's library may well even be the last great venture in such private accumulations. Those who have seen it or are familiar with parts of its contents, will certainly agree about its magnificence as an economics library of early works. A tale of two economics libraries is, therefore, an appropriate tribute to Arnold in his role as conserver of the rich heritage of economic literature.[3]

## The Marshall story

The introduction to the catalogue of the Marshall Library, Cambridge University, printed in 1927, presents a brief history of the Marshall Library which is so concise that it can be quoted in full:

> The nucleus of the original Departmental Library was collected by Dr Alfred Marshall for the use of students, and placed by him in 1909 at the disposal of the Special Board of Economics. Valuable gifts of books were also made by Mr Arthur Berry and Mr C. P. Sanger. From 1909 to 1911 the Library was chiefly maintained through the generosity of Professor Pigou. In 1911 an annual grant was voted by the Senate and was continued until 1926.
>
> After Dr Marshall's death in 1924 practically the whole of his private library was presented to the University by Mrs Marshall and was merged with the Departmental Library. She also provided a considerable capital sum necessary for the reorganisation of the library, and has given an annual grant for its maintenance and expansion. All these benefactions are in accordance with wishes expressed by Dr Marshall during his lifetime. The Marshall Library is a fitting memorial to his work and influence, and to his never-failing interest in the progress of economic studies in Cambridge.[4]

This introduction draws attention to several features of the Marshall Library as it was constituted by 1927. It was intended for the use of students in economics by its 'founder' and it includes practically the whole of his private library which, on his death, was transferred to the University by his widow and merged with the existing departmental library according to his will.

A fuller account of the Marshall Library and its origins was presented on the occasion of the centenary of Marshall's *Principles of Economics* by its then librarian, Donald Ross (1991). It adds greatly to the details of the history without in any way conflicting with the thrust of the introduction to the 1927 catalogue. More specifically, Ross' account clearly indicates the dual influx of Marshall books into the library, that is, first those books he made personally available for student use – initially in the moral sciences, and later for the economics and politics triposes – in an informal departmental library and, subsequently, on his death, those from his private collection which went to the university library resources according to his will. For the purpose of this tale, both sides of Marshall's benevolence to the Cambridge Economics Library facilities need to be pursued.

Much of the moral sciences and history teaching at Cambridge during the late nineteenth century, including that of political economy, centred on a book list which students had to read and about the contents of which they were invariably examined. Advanced students, for obvious reasons, were given longer and more challenging lists than the pass students. Good library facilities were essential to such a learning process, even though many students did of course purchase their own copies of these set books.[5]

The Cambridge of Marshall's days as teacher of economics, both during the 1860s and early 1870s, its first phase and, more surprisingly, that from the mid-1880s, was deficient in the library resources required to assist the type of learning process just described in the then still rather new-fangled subject of political economy within the syllabus of the moral sciences. The first Professor of Political Economy at Cambridge, George Pryme, had tried to remedy this situation by making available a collection of his own books for student use within the university. After Pryme's death in 1868 these books, for a long time, were not used at all for their originally designated purpose, and were stored in boxes outside the Vice-Chancellor's office. Pryme's successor, Henry Fawcett, a textbook writer and a person afflicted with blindness, appeared to have had less urgent need of additional books for his students, so it was not until some time after Marshall's appointment to the Cambridge political economy chair in 1884 that the Pryme collection was reactivated for student use in the manner initially intended.[6]

During 1886, Marshall succeeded in restoring this bequest from his predecessor to serving its donor's intentions, supplementing Pryme's gift from his own library resources in the manner he (and Sidgwick) had done earlier by providing philosophical books from their personal libraries for the use by students in the moral sciences. When Marshall himself retired in 1908 these became his first formal gift of economics books to the university library. It may be added that up till then, these books had been circulated through the rather informal and unsupervised borrowing arrangements sanctioned from its inception (1903) by the Board of Studies of Politics and Economics in direct line of succession to the practice instituted a half century earlier by the Moral Sciences Board. When Marshall retired from economics teaching (1908), the books were no longer housed in boxes but in a bookcase for which, characteristically, Marshall had also paid. On 27 January 1909, the Economics and Politics Board appointed an official custodian of books from among its members, Maynard Keynes, in order to formalise the arrangements by which to circulate this book stock and, as already quoted from the 1927 Marshall Library Catalogue, it was from this year that the Marshall Library was effectively born.

Subsequently, the Marshall Library received two further injections of Marshall's benevolence by way of provisions made in his testatory disposition as generously interpreted on his death in 1924 by his widow. Marshall's final will itself had been prepared in 1908. Marshall's estate, as I have recounted elsewhere (Groenewegen 1995: 746), then consisted of the remainder of the 99-year lease of Balliol Croft; Marshall's substantial personal library of books, monographs, journals and official reports, kept at home; investments in various stock exchange securities, and last, but not least, his copyright in books already published and his personal notes and papers, including correspondence. For purposes of probate, this estate was valued at £13,001. A substantial part of these assets, and its more valuable part for posterity, ended up in the Marshall Library.

The first element of Marshall's bequest consisted of his personal library insofar as it was wanted by the Board of Studies in Economics and Politics (material not wanted could be sold or be disposed of in any other way it deemed fit). Together with the books which Marshall had given for student use to the university in 1908, they were to form the nucleus of what in 1925 officially became the Marshall Library. In addition to this substantial gift of books, Mary Paley Marshall offered the university a gift of £1,000, to be used as either capital or income, to cover expenses in connection with the gift of the books, a sizeable donation both with respect to the overall size of Marshall's estate and the cost of running the Economics and Politics Library, which was estimated at the time at £21 per annum. These were superb foundations for the development of a research library in economics in the 1920s.

There was, however, a further legacy from the Marshall estate to the library. This came in the form of Marshall's personal notes and papers, including his extensive economic correspondence, though when and how it came is not clear (Ross 1991: 329–30). The contents, giving a fair indication of its coverage, have been summarised as follows (Ross 1991: 331):

1. Correspondence (the biggest single part of the collection having some 350 items in it)
2. Records relating to teaching
3. Lectures
4. Notes in hard covers (mostly pre-1890)
5. Notes in bundles and loose (mostly post-1890)
6. Writings: drafts and annotated proofs; annotated pamphlets
7. Graphs, charts and tables
8. Papers relating to the creating of the tripos
9. Personal history (including items relevant to Mary P. Marshall)
10. Photographs
11. Supplementary materials relating to Marshall's biography

The value of that resource for later Marshall students need not be pursued here. Much of the most interesting material has now been published (Whitaker 1975; 1996; Raffaelli *et al.* 1995).

The gathering together in one place of Marshall's own books in the Marshall Library indicates the nature of this part of the bequest. As is implicit in the tale of the initial gift of books to the university library, the books were intended for use by students to assist in their study of economics. It was a practical and not a collector's library although, with the passage of time, the visitor to the Marshall Library interested in examining Marshall's own books will now see many items of considerable rarity. Marshall himself bought books primarily because they were useful for his own work and research. The collection of books which he bequeathed to the university for use by the Board of Studies in Economics was therefore particularly well suited for the task of assisting students in their work from its essentially practical orientation. This utilitarian perspective on the importance of the book for the economics student in learning and practising economics is also reflected in Marshall's 1896–7 monetary donation to the library of the then recently founded London School of Economics and Political Science.[7]

This practical aspect of Marshall's book acquisition habits can be further illustrated from the few snippets of evidence which remain on this subject. His European travels during the summer vacations from the mid-1860s until 1877 were probably partly utilised for buying books in Germany and Austria. The presence in his library of early editions of German economic works – a good example is the fifth edition of Rau's *Grundzatse der Volkswirtschaftslehre* of 1847, with its diagrams of supply and demand – makes such a supposition highly plausible (Groenewegen 1995: 154; Marshall Library Catalogue 1927: 69).

More telling is an exchange of correspondence with Foxwell in early 1883. This shows that at the time Marshall was using his colleague and former student for ordering books from second-hand dealers. Among books Marshall acquired in this way were Eden's *The State of the Poor* (London, 1797) and Malthus' *Definitions of Political Economy* (London, 1827). Both books were later used in the writing of Marshall's *Principles*. However, Marshall declined an opportunity to buy a copy of Alexander Hamilton's *Report on the Public Credit* (London, [1790] 1795) because 'I am not particularly interested in the subject; and have already a huge amount of printed matter related to it'.[8] These are not the words of a dedicated book collector, but of the gatherer of books for their direct use in study of the subject they cover.

A particularly interesting insight into Marshall's attitude to book buying comes from two cards to Foxwell in February 1883. They broach Marshall's interest in acquiring a copy of Richard Cantillon's *Essai sur la nature du commerce en général*, then only very recently rediscovered by Jevons.[9] The cards are so short that the relevant parts can be quoted in full, though it is unfortunate that Foxwell's (probably exasperated) reply has not been preserved.

The first card was sent on 1 February:

> My wife is lecturing on A. Smith. She has just read Jevons on Cantillon & finds life unsupportable till she has read him. I think you said you had a copy of him to dispose of.

Foxwell's reply elicited the following Marshallian response on 9 February:

> Don't vex yourself about Cantillon. I sh$^{d}$ … not read it myself just now, if I had it. It is altogether outside my present line of work. Only Mary is going in for the history of economic theory in connection with Group D, & was fascinated by what Jevons said of him. If we come to Cambridge at Easter, no doubt she will borrow the book and read some of it. On no account send it by railway. When I wrote I did not know the book was so precious; though now I think of it, I ought to have known.
>
> (Whitaker 1996: I, 152–3, letters 112, 113)

Again, it is the demand from current work requirement rather than that from the thrill of collecting which ultimately guided Marshall's preferences in book acquisition.

Many of the fruits of the acquisition remain visible to this day in the section of the Marshall Library at Cambridge which houses the collection of Marshall's books bearing clear proof of his former ownership. The nature of these books indicates that Marshall viewed the 'scholarly library' as a 'workshop' rather than as a 'storehouse', to use the classificatory language which came into being in the United States with respect to university libraries during the later part of the nineteenth century (Ross 1991: 324–5). Tastes in acquiring books in this way fit in with Marshall's earnestness as a teacher and student of economics, and the manner in which he practised his craft during his long working life.

## The Foxwell story

Just as Keynes (1972: 267) described Marshall and Foxwell as 'two antitheses, two complementary forces, as different from one another as possible except in their single-heartedness', so their libraries were quite distinct, bearing, as they did, the hallmarks of their distinct personalities, including the shared quality of 'single-heartedness'. As a student in 1868 and, from 1875, as a colleague of Marshall in faculty and college, Foxwell began teaching economics at Cambridge in 1877 (when Marshall, on marriage, had to leave Cambridge for Bristol), continuing such teaching until 1908; adding the professorship in economics at London's University College from 1882, and crowning his economist career with the presidency of the Royal Economic Society for 1929–31, not long before his death in 1936. His greatest claim to fame, however, is as book collector where, as indicated in the introduction to this chapter, he gathered together the major part of two great collections devoted to the early literature of economics: the Goldsmith's Library at the University of London, and the Kress Library of Business and Economics, situated in the Graduate School of Business Administration at Harvard. These collections encapsulate his lifetime interest in bibliography, in banking, money and finance, the critique of socialism, and in economic history.

Both his book collecting and his wider interests in economics were stimulated through his close friendship with Jevons. This began in 1874 when they both acted as examiners for the Cambridge moral sciences tripos, and ended with Jevons' death in 1882. This relationship was matched by the lifelong devotion to Foxwell of one of his earliest London students, and later leading economic bibliographer and historian of economics, Henry Higgs. Foxwell's book collecting began, on his own account, in 1875, at a bookstall in Great Portland Street where Jevons persuaded him to buy a copy of Lardner's *Railway Economy*. Over the following six decades, Foxwell acquired more than 70,000 volumes through diligent book buying. Keynes' description of Foxwell as book-buyer is so brilliant, it can be quoted in full:

> The perusal of second-hand book catalogues, the selection, purchase and reading of fresh discoveries, their annotating, cataloguing and binding came to occupy over many years a great part of his time and thought. Foxwell read

> much of what he purchased, and his brief, significant notes and summings-up, many thousands of them, written on the inside cover or fly-leaves or on loose slips of paper inserted by the title-page or on the paper covers which contain many of the pamphlets of the collection destined for Harvard, add very greatly to the value of what he assembled. In course of time he became ever more insatiable, sometimes buying whole collections, and not merely single volumes. He came to regard it almost as a moral fault to miss a desirable purchase. I remember his advice to me that one should never hesitate in such a matter. 'I have often regretted *not* buying a book,' he would say, 'but I have *never* regretted buying one.' He had no rules of prudence for rationing his purchases. 'Books', he said, 'are not groceries, one cannot buy them by the week.' They were *trouvailles* to be stalked and pursued, and taken when they could be got. Nothing was allowed to stand in his way – except, perhaps, that in old age he never became accustomed to some of the high prices now current, largely through his own instrumentality, for his favourite rarities. This unrestrained ardour involved him in considerable embarrassments and anxiety. Foxwell had but small means and never held a well-paid appointment; I doubt if his income reached £1000 a year at any time. It is extraordinary that he should have managed to carry on as one of the largest scale book collectors in the world. It meant much denial in other directions and devoted help on the part of his wife – they lived for many years without a servant. His method, moreover, was to run up a larger overdraft than even a lenient bank could approve. And when, from time to time, in later years a major crisis arose, the collection had to be sold; a new one being forthwith commenced upon the substantial surplus of the proceeds.
>
> (Keynes 1972: 283–4)

During the 1870s, when Foxwell began collecting, acquiring books for the type of collection he wished to build up was still relatively easy. As Foxwell himself recalled during the late 1920s,

> when I began collecting, books, now eagerly competed for at Sotheby's by dealers with commissions from Germany, Holland and America, were thrown aside for the value of their paper to the book-stall keepers in the Euston Road, etc. from whom I bought hundreds of volumes at nominal prices.
>
> (Audrey Foxwell 1939: 22, to which she adds, 'He had done the same on the "quais" of Paris'.)

As the collector he undoubtedly was – 'He had, in fact, a passion for collecting' (Audrey Foxwell 1939: 24) – Foxwell prized special treasures he had gathered together in his library. One of these was a

> first edition of Adam Smith's *Wealth of Nations* in original boards, a state in which it is possibly unique … a copy of the first edition of Helvétius' *De*

> *L'Esprit* … [with] a coat of arms on the binding [which] subsequent investigation indicated … [to be ] … those of Frederick the Great … [A]nother magnificent copy of the same work, was especially interesting to him, for it had belonged to Mrs Vesey, the famous 'blue stocking', whose first husband, William Handcock M.P., had been a connection of one of his ancestors.
>
> (Audrey Foxwell 1939: 27)

Foxwell (1925: 871) himself mentioned that the provenance of the books in his libraries was of great concern to him, not only in terms of the famous collection from which he had purchased them, but especially if they had belonged previously to economists. The following list prepared by Foxwell gives an indication of the variety and importance of such provenance, which commences with major private libraries from whose stock he purchased:

> The Sunderland, Clandon, Osterley Park, Hamilton Palace, Duke of Sussex, Duke of Cambridge, Duke of Buccleuch, Duke of Portland, Earl of Lauderdale, Stanesby Alchorne, George Chalmers, Gunning, Sir Robert Peel, Lord Monteagle, Agar-Ellis, Lord Prestongrange, Visct. Bruce of Ampthill, Gibson Craig, James Crossley, Frere of Roydon, General Wilson, Gardyne, Lord Ripon, Speaker Onslow, Lord Ashburton, Pleydell Bouyerie, Sir John Fenn, Lord St Leonards, Sir R. C. Hoare, Cornelius Walford, Capelle, Pole-Carew, Trentham; and amongst economists and reformers, Arthur Young, Dean Tucker, Adam Smith, Ricardo, Colquhoun, Cobbett, Francis Place, Quételet, Joplin, Baring, Senior, William Allen, Oastler, Sadler, Kydd, Lovett, Truelove, Considérant, Paul Janet, Sabatier, Roscher, Col. Hyde, Ruding, Cliffe Leslie, Bonamy Price, Smiles, Hyde Clarke, Gerritsen, etc.
>
> (Foxwell 1925: 871)

As users of the Goldsmiths' Library will know, Foxwell was also a great lover of good binding, a subject on which he had his own rules and preferences. Audrey Foxwell (1939: 27) recalled that for books which he had bound for himself, his preference was for using a new leather called niger.

> He never tired of looking at a beautiful binding, such as the one in morocco, appropriately tooled with ships, on an *Act for the Defence of Shipping* (1651), or the magnificent seventeenth- and eighteenth-century French extra bindings, especially those in red morocco with the color mellowed down by age.
>
> (Audrey Foxwell 1939: 27)

Foxwell went beyond being a connoisseur of fine bindings.

> Even more, he loved a book for being a living piece of history, a part of the life of the day in which it was produced. He savoured books; and, as a true bibliophile,

> loved handling them. But much more than this, he was deeply concerned in cataloguing and arranging his library and in such matters as seeing that separate publications were separately bound and that all books were suitably bound and repaired as necessary. His scheme of classification was basically to keep the books in chronological order with broad subject divisions under each year, although for books after 1800 he had broad subject divisions in which he arranged the books chronologically. Experience has shown that in insisting on this chronological order Foxwell was absolutely right. This arrangement on the shelves has been generally approved by all who use the Goldsmith's Library, and not only by scholars in economics.
>
> (Goldsmiths' Library Catalogue; see Canney and Knott 1970: xiv-xv)

It also formed the method by which Higgs organised his economics bibliography for 1750–75.

This chronological ordering is as useful as the Goldsmiths' librarian indicates. When I was working in the library during the early 1960s in connection with research for my Ph.D. thesis on the theory of value, production and distribution from 1650 to 1776, the shelving arrangement facilitated researching and writing up that research in discrete, chronological slabs. The arrangement also indicates an aspect of the practical nature of Foxwell's library. It was intended for use in original, historical research; in the first instance that undertaken by his friend, Arnold Toynbee, on the Industrial Revolution.

The notes which Foxwell wrote on the coversheets of his pamphlets and books were also an important part of his excellent librarianship. They invariably contain useful auxiliary information on possible authorship when the tract was anonymous, as so many were at that time; on its contents; and on any other important features of a specific item, such as whether there were interesting annotations within the pamphlet by a former, eminent owner's hand. No wonder the Goldsmiths' Library seeks to add to its collection all works coming on to the market with annotations in Foxwell's handwriting on the opening sheet within the binding (Canney and Knott 1970: xiv).

The lasting fruits of Foxwell's zeal in book collecting have gone to the world's two major libraries in the history of economics: the Goldsmiths' Library at the University of London, and the Kress Library at Harvard. Audrey Foxwell (1939: 21) ascribed the necessity for selling the first, and major, Foxwell collection to the Goldsmith's Company to the loss of Foxwell's fellowship income from St John's College in 1898 as a consequence of his marriage. This forced him to 'realise his capital', invested, if not over-invested,[10] in books, by selling his library in 1901 to the Goldsmith's Company who, in 1903, donated it to the University of London. A supplementary explanation of Foxwell's eventual need to sell is that, from the late 1880s onwards, Foxwell often spent more than twice his income on books for his library, financing the deficits from overdrafts. By the end of the 1890s, these overdrafts had grown so large that the library was under constant threat of having to be disposed of.[11] The loss of Foxwell's fellowship income in 1898 was undoubtedly a major blow to the Foxwell finances, but his method of financing much of his book buying by bank overdraft would inevitably have forced a sale around the beginning of the new century, if not before. The delay of the sale until 1901 was also associated with the fact that Foxwell preferred a British buyer so that his library would stay in England (achieved through the Goldsmiths' Company's offer to purchase), and that he therefore rejected an earlier firm offer to purchase by the John Crera Library of Chicago (Foxwell 1898: 872; Groenewegen 1995: 675–6).

The financial recovery induced by the 1901 sale allowed Foxwell almost immediately to begin the construction of a second collection. It duplicated much of what had been in his first (now Goldsmiths') collection but, as Audrey Foxwell (1939: 26) recalled, it was much richer in works on socialism, an interest of Foxwell arising from his critical zeal in combating what he saw as the errors of socialist doctrine. 'Gradually, it [the new collection] came to contain all the famous economic classics from Scaruffi onwards'.[12] As before, Foxwell used his time between lectures in London to search the second-hand bookstores, so conveniently located in the nearby Charing Cross Road area, while as his daughter also recalled, the regular holiday trips to Wales were at least in part devoted to book hunting, as was a visit to Milan in 1923 for the purpose of lecturing at its Bocconi University. By the late 1920s, the library having grown to the size of around 30,000 items (*Kress Library Catalogue* 1940: v), financial problems once again forced the sale of this second collection. In 1929 it was sold to the Baker Library at Harvard (which houses the Kress). This subsequently acquired also the fruits of Foxwell's last period of collection, over the years from 1929 until his death in 1936. The 1929 sale arrangements were most favourable, given the tastes of this insatiable book collector:

> The Baker Library bought the duplicate part of the library outright, and was to buy the main library as soon as its owner was disposed to part with it or at his death. He could not bear to part with the bulk of this library during his lifetime, for his relations with it were those of the father to the child; but he was happy to think that it would be kept entire, the whole in this case being certainly greater than the sum of the parts, and pleased to think that it was eventually going to Harvard where it would be safe for all time.
>
> (Audrey Foxwell 1939: 28–9)

Little more need be said on this magnificent achievement in facilitating the creation of two of the world's leading libraries in economic classics. Self-sacrifice and abstinence produced these two great monuments to Foxwell's collecting proclivities which, in both their splendid settings, will benefit the work of scholars in economics and its history for many centuries to come.

## Assessing the two approaches to library building

Two very different libraries were created by two very different people, good friends and colleagues though they may have been for the greater part of their lives.

One library, that gathered by Marshall, was designed to assist the student of contemporary economic problems, both theoretical and applied. Although it had its historical components, collected largely during Marshall's historical period of the early 1870s, it was essentially the library of a teacher of economics, with generally only a marginal interest in economic history and the history of economics, except insofar as they assisted the explanation and understanding of contemporary phenomena. It was eventually, and after Marshall's death, officially transformed into a library for the students of economics Marshall had so actively encouraged during his long period as teacher, and remains as an enduring monument to his work within the university at which he himself had studied and taught. Its historical importance now arises largely from the fact that it houses the Marshall Archive of his former papers, notes and documents, as well as a substantial selection of Marshall's own books, with their annotations and modest bookplate. As demonstrated in the first section, Marshall's collection has the stamp 'practical' all over it, fitting in with his earnest devotion to the task of teaching economics.

The second library (or 'libraries' is perhaps better) gathered by Foxwell is quite distinct in nature and objective. It was constructed to assist aspects of the study of economic history, and to illuminate the history of the development of economic argument and its intellectual offshoots such as socialist doctrine. These objectives are preserved in the permanent resting place for his major collecting endeavours, now housed in London and in Boston, in the Goldsmiths' and Kress Libraries respectively. They induced major bibliographies of economic literature, produced on Foxwell's plan of primarily chronological, and only secondarily broad subject, ordering. Foxwell's collecting also conserved much material for posterity, from the waste paper merchants in the first instance, to the more general attrition of time over the longer run. It involved enormous financial sacrifice and dedication on the part of the originator, who seems to have subordinated much of his other activities to his passion for book collecting.

The Foxwellian approach to the building of economic libraries will increasingly become more difficult, as it did indeed for Foxwell himself in his later years, for a variety of reasons. The financial costs of such collections are steadily growing more enormous, while the element of luck,[13] so essential to successful book hunting, becomes more and more rare. Arnold Heertje's magnificent economic library is firmly within the Foxwell tradition of book collecting, perhaps the last successful attempt in such an endeavour for reasons mentioned in the introduction to this chapter. Heertje's conservation contribution to economic literature, like that of Foxwell, is not the least of his various contributions to economic study, which are commemorated in this volume. Long may he continue in this accumulative and historically important quest.

## Notes

1 I have dealt elsewhere with the Marshall-Foxwell relationship (Groenewegen 1995: esp. ch. 18, 670–9).

2 The word 'both' is in quotation marks to draw attention to the fact that Foxwell built up two collections during his lifetime, as mentioned subsequently in this paragraph and discussed more fully in the second section of this chapter.

3 I have had the pleasure of being able to use all four of these collections during my lifetime of research in the history of economics. The Goldsmiths' Library was the major source when I was writing my Ph.D. thesis at the London School of Economics in the early 1960s; I made extensive use of the Marshall Library during the late 1980s and early 1990s when working on my Marshall biography; I have only visited the Baker Library at Harvard once in the 1990s, and in 1995 used Heertje's Library for research on Quesnay as doctor, more particularly to study some of his medical works. I might add that I have also made use on occasions of books housed in the Seligman, Robbins and the Einaudi collections, the last in connection with work on eighteenth-century Italian economics, with special reference to that of Pietro Verri.

4 Marshall Library of Economics, Catalogue, Cambridge; printed for the Faculty of Economics at the University Press, 1927: iii.

5 A number of samples of such lists are reproduced in Groenewegen (1995: 562–9).

6 In 1886, Marshall estimated the size of the Pryme collection in terms of about 1,000 feet of wall space, and as consisting largely of unbound paper pamphlets, many of them scarce. They are now housed in the Cambridge University Library, Rare Books Section, as a special collection where the author made use of them in order to gain access to a copy of Torrens' 1808 pamphlet, *The Economists Refuted*, for the purpose of reprinting it in the series of economic classics he edits for the Centre for the Study of the History of Economic Thought at the University of Sydney. Also see Ross (1991: 327–9).

7 Groenewegen 1995: 542, n*. See Marshall to George Darwin, 24 March 1899, which concludes

> A further, but less urgent need at Cambridge University is for an economic library containing about three thousand books arranged round a room, in which advanced students can work under instruction, after the manner of the German economic *seminar*, which has already been well acclimatized in America.
>
> (in Whitaker 1996: II, 250)

8 Alfred Marshall to H. S. Foxwell, 19 January 1883, 22 January 1883, in Whitaker 1996: I, 151–2. Both books are mentioned in the Marshall Library Catalogue (1927: 26, 54), presumably the copies bought by Marshall at this time.

9 See W. S. Jevons, 'Richard Cantillon and the Nationality of Political Economy' which had been published in the *Contemporary Review*, January 1881, a periodical which the Marshalls read and an article which should have alerted Alfred Marshall to the scarcity of the book (see Jevons 1881: 157, where Jevons indicates it is 'a book of much rarity in England'). The Marshalls did subsequently acquire a copy for themselves, now housed in the Marshall Library (Catalogue 1927: 14). When they acquired it is not known, but the work is mentioned in the *Principles* (1890: 53n, 503n), the first reference of which describes Jevons' praise of Cantillon's *Essai* as rather exaggerated. By the eighth edition 1920, Richard and Philip Cantillon are blurred together, with Richard Cantillon obliterated in the index of the 1961 variorum edition, ed. Guillebaud (II, 845).

10 In 1887, John Neville Keynes' diary recorded that Foxwell had spent £2,000 on his library, to be compared with an annual income which Maynard Keynes later estimated, as already quoted, at probably never having exceeded £1,000. Foxwell therefore fully lived up to the adage he had imparted to Maynard Keynes: 'I have often regretted *not* buying a book, but have *never* regretted buying one' (see Groenewegen 1995: 675–6).

11 In 1897, the growing financial crisis from Foxwell's book buying induced Marshall to offer some 'impertinent' advice by letter. It entailed settling the library on Foxwell's wife-to-be, lowering the rate of his acquisition, and repaying the bank by writing for newspapers. Foxwell did not follow this advice (cited in Groenewegen 1995: 676).

12 That is, Gasparo Scaruffi (1519–84), Italian merchant, banker and economic writer, whose treatise on money, *L'alitinonfo* [*The True Light*] was published in Reggio in 1582 (it was included in the Custodi collection of rare Italian tracts in 1802 [II, 71–322]).

13 I well remember my former professor at the University of Sydney, the late S. J. Butlin, a book collector of economic material on a relatively large scale, recalling his stroke of luck in arriving at Harvard during the Great Depression at the precise moment when the Baker Library was disposing of some of its duplicates at what Butlin described as bargain basement prices. Among other things, these included a copy of Du Pont de Nemour's *Physiocratie* in a first edition, a copy I borrowed from him to use in connection with my work on Turgot during the early 1960s. One of my own strokes of luck in far more modest book buying occurred during a visit to Cambridge in the late 1980s, when I bought for 20p an 'odd' volume (in fact, Volume I) of Pierson's *Principles of Economics* which, to my great surprise and delight, had attached to its frontispiece a letter from Alfred Marshall to Sir George Darwin, referring to the book in question (the full text is in Whitaker 1996: II, 185–6).

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# 21 Marshall's correspondence 1868–1924

## A review

*The Correspondence of Alfred Marshall, Economist*, edited by John K. Whitaker. Volume I: *Climbing, 1868–1890*. Volume II: *At the Summit, 1891–1902*. Volume III: *Towards the Close, 1903–1924*.

The edited correspondence of a number of eminent late nineteenth-century economists has been available for some time. That of William Stanley Jevons, edited by R. D. C. Black, was published in four volumes by Macmillan for the Royal Economic Society as part of a seven-volume *Papers and Correspondence*. That of Léon Walras, together with associated documents and edited by William Jaffé, was published in three volumes by North Holland for the Royal Dutch Academy of Science and Letters with assistance from a number of organisations in four countries, including the Royal Economic Society and the American Economic Association. That of Vilfredo Pareto has been edited as part of his complete works in many volumes, such as, for example, the three volumes of correspondence with Maffeo Pantaleoni edited by Gabriele de Rosa.

These very readable insights into the minds of prominent economists are now joined by the correspondence (and associated documents) of Alfred Marshall in three volumes, superbly edited by John K. Whitaker, who, twenty years previously, published an edited set of Marshall's early (i.e. before 1890) writings on economics from those preserved at the Marshall Library in Cambridge. This collected Marshall correspondence has also drawn heavily on the Marshall Library for the substantial number of letters it preserves, but needed to be supplemented from many other collections, great and small, the details of which are provided in Appendix 2 of Volume III.

In all, 1,148 letters are reprinted. They include a substantial number of Marshall's letters to the press; correspondence to, and from, Mary Paley Marshall; many communications between Marshall and representatives of his publisher, Macmillan; and a good many letters thanking him for complimentary copies of his later books, especially *Industry and Trade* (1919) and, in equally large numbers, *Money, Credit and Commerce* (1923). (As an indication of occasional editorial selectivity, the last are not all included as explained in n1 to Letter 1129, from Edwin Cannan, the first of twelve 'thank-you notes' for *Money, Credit and Commerce* selected by Whitaker.) An index of letters by correspondent (III, 421–9) enables a bird's-eye view of the who's who of Marshall letter writers and recipients in which (in terms of quantity at least) Herbert Foxwell, John Neville Keynes, Frederick Macmillan, John Maynard Keynes, Ludwig Brentano, Edwin Cannan, Edwin Seligman and Frank Taussig are among the stars.

The letters are printed in strict chronological order over the three time periods that divide the correspondence into its three volumes. All letters are provided with explanatory notes immediately following their reprinted text. These notes give source and present whereabouts (if known); cross-references to other letters, when necessary; and explanations about matters raised in their contents. All three volumes contain a biographical register of individuals mentioned, but not specifically identified, within the body of the volume concerned, omitting only the relatively small number of names assumed to be so well known that biographical assistance of this nature is redundant. The task of preparing this information was substantial, but to further assist the reader in absorbing the vast amount of material reprinted, Whitaker has provided much more. There is a useful general introduction; a separate note on specific points of editorial practice; a brief sketch of Marshall's life; and, for each of the three volumes, a Marshall chronology for the time period covered. There are, in addition, appendices on Marshall's family; the text of Marshall's testimonials supporting his application for the principalship of Bristol University College; Foxwell's initiatives to secure a lecturing position for Marshall at Cambridge in 1881; the 1889 debate on reform of the moral sciences tripos; the text of Marshall's *Pall Mall Gazette* article (13 April 1887) entitled 'Is London Healthy?'; reports of Marshall's speeches to the Cambridge University Senate; and his 1900 speech at a meeting to promote a Henry Sidgwick memorial. Marshall's letters to his mother in 1875 from the United States are enriched by reprinting their many enclosures covering his impressions of New York theatre, American character, American personalities such as Ralph Waldo Emerson and H. C. Carey, and, above all, American manufacturing, inventions and industrial organisation, often illustrated by small sketches. A short paragraph on artificial wealth creation imparts some of their flavour:

> A typical dodge for increasing wealth is as follows. A bonanza is discovered. It is kept quiet, covered up; old hands who know the difference between good ore and bad kept out of the way; the works pursued in other directions, great expenses incurred, call after call made on the shareholders. This lowers price of shares (i) because it makes people think lightly of the mine (ii) because those who have shares have to sell some of them in order to pay the calls on the others. Then they buy largely; then they open out the best deposits; & give every facility to people who want to inspect the mine. They see a solid almost limitless mass of ore, they are encouraged to pick specimens to take them home & get them analysed; then the furor sets in;

> when it has got to its maximum the chief people begin to unload. Thus the Virginia consolidated leaped up to 800 in February & are now at 320.
>
> (Letter 29, I, 74–5)

Needless to say, the contents of these volumes are a literary bonanza for those interested in Marshall's life and personality. When I wrote my biography of Marshall (Groenewegen 1995), Whitaker generously gave me access to the vast material he had collected for these volumes, a kindness that saved me much time, effort, and expense in not having to chase up individual collections of letters in their various locations around the globe. Marshall's letters are particularly useful to the biographer because of their general openness and frank honesty. Marshall tended to let himself go in his private correspondence to an extent he, generally speaking, did not dare to do in his writing intended for eventual publication. He explains this trait, indignantly, in a letter to Benjamin Kidd, the social philosopher. Without seeking permission, Kidd had published part of the contents of one of Marshall's private letters to him (Letter 450, II, 115) that raised a matter, 'the opposition between religion and reason', which Marshall would have liked elucidated when Kidd next wrote on the subject. Marshall's complaint can be reproduced in full:

> But may I venture to expostulate against your having allowed anyone to publish the contents of my private letter to you. A new terror is introduced into life by the notion that loose emotional phrases wh[ich] one has written with a free & careless hand in a private letter may appear in print without notice. I am specially careful to avoid such phrases as that about life's being measured by heart beats in anything I send to the press; but I relieve myself by making rather free use of them in private conversation & in private letters. I have therefore rather more to fear than most from being overheard unawares. I trust therefore that you will kindly take care that the publication of my letter does not go any further; & I am sure that you will forgive my boldness in making this request.
>
> (Letter 461, II, 124)

Marshall's high degree of candor in correspondence also makes these volumes of use to the economist interested in exploring the meaning Marshall assigned to some of his famous concepts and the manner of their presentation. His letters have a clarity that his published writings less frequently attain. Ronald Coase (1975) demonstrated this two decades ago in his paper 'Marshall on Method', which drew heavily on Marshall's correspondence with John Neville Keynes when Marshall was reading the proofs of Keynes' *Scope and Method of Political Economy* in the early 1890s. Much correspondence with Francis Edgeworth likewise throws light on Marshall's method as well as, more generally, on points of theoretical interest. They include some lessons on the supply curve:

> You are good & kind & patient as usual. I am distinctly of the opinion that the laws that govern the supply curve have little or nothing in common with those that concern the demand curve; because in demand there is nothing corresponding to the economies of production on a large scale, difference between Prime Cost and Total Cost or wh[at] is nearly the same thing between causes that govern the application of Fixed & Circulating Capital &c which give rise to the special features of supply. I think Jevons did great harm by talking of supply-price as measuring disutility curve. In picking blackberries, the disutility curve of effort and the supply curve are practically the same things & they are in pari-materia with the demand curve of the utility curve. But in the case of aneroid barometers &c, the economic supply curve has but the slightest connection with the laws of disutility; for the greater part they are not in *pari materia* at all …
>
> As regards supply the case is this. I have always held & taught in lectures year after year that Producer's rent cannot be represented in the supply curve … except in cases in wh[ich] you can ignore the economies of organisation & production on a large scale. In the second Ed$^{n}$ … I adopted the name *particular expenses* curves for those in wh[ich] you can do this.
>
> (Marshall to Edgeworth, 28 August 1892, Letter 408, II, 71–2)

Marshall also gave lessons to Edgeworth on the importance of keeping fully informed in economics with changing circumstances, in which he praised the virtues of this *Journal* [i.e. *Journal of Political Economy*] as against the *Economic Journal*:

> A person who gets his chief knowledge of economics from the E. J. perhaps hardly gets to know enough of the vast economic changes of our own age. Some of these changes are sometimes referred to in it; but nearly always in small type.
>
> In this matter the Chicago journal is rather good. Thus it has had two articles on recent transformations of the wheat trade. Perhaps you w[oul]d rather wait for the full report of the Agricultural Commission before going into that.
>
> Then take iron, or steel, or 'horse power' or electric engines or tea, or aluminium, or silver &c. &c. and get a specialist to describe the causes & methods of the increased power of (English) labour in getting a unit of these; in other words investigate the influences of
>
> A improvements of method
> - i chemical
> - ii mechanical
> - iii mode of organization
>
> B opening up of new sources of supply
> - iv discoveries of new fields

v peopling up of new fields
vi new lines of transport roads, railways &c
vii new economies of transport (lower freights per ton mile).
(Marshall to Edgeworth, 26 March 1895, Letter 460, II, 123)

Other correspondence indicates the value of these volumes to persons interested in coming to grips with the strengths and weaknesses of Marshall's concepts in the manner in which he saw them himself. Thus George Stigler, himself a 'lynx-eyed reader,' may have been delighted to read Marshall's reservations about his treatment of plasterers and derived demand expressed in a letter to John Neville Keynes, a topic on which Stigler (1941: 82–7) also had much to say:

> What I say about *Derived* Demand & Supply, Book V Ch V §§ 1, 2d & 4 is, in my own conceited opinion, new & important; but the exposition gave me a great deal of trouble & is I fear unsatisfactory yet. In particular I have taken an illustration in the text (not in the footnote) about plasterers which I knew at the time was not in perfect logical harmony with the assumption that the curves apply only to periods sufficiently long to allow free action to the normal forces of supply (in this case the growth of plasterers). I took that particular illustration partly because it is a striking one, partly because I shall want it a good deal in Book VI; and I thought that if I apologized for & explained away this logical change of point of view I sh[oul]d … bother the readers; & that if I said nothing of the possibility of the supply curves sloping downwards towards the right. (I have suppressed hundreds of possible queer cases of that sort for fear of over burdening the book by statements of the conditions by wh[ich] … they had to be safeguarded.)
> (Marshall to John Neville Keynes, 26 October 1888, Letter 251, I, 275)

Likewise, Milton Friedman, as connoisseur of the ins and outs of the Marshallian demand curve, may enjoy the illumination that some of the letters give on the constancy of money income assumption as raised in a letter of John Neville Keynes (Letter 281, I, 309):

> I considered for a long time whether I w[oul]d discuss the difficulty you raise about the change of consumers rent derived from other things consequent on a diminished purchase of coals. Perhaps I shall in consequence of the difficulties having struck you insert a line or two in the Mathematical Appendix to say: If he spends less on coals, the marginal utility of money for other purchases will be affected to an infinitesimal degree: – infinitesimal because, as stated in the text … the whole of this class of reasonings is strictly valid only on the assumption that the purchases under discussion are small relatively to the purchaser's whole wealth.

Correspondence with Leslie Stephen (Letters 341, 342, II, 8–11), too long to reproduce, raises similar issues. Other letters clarify aspects of quasi-rent, rent in relation to cost of production, capital theory, and the use of mathematics and diagrams in economics.

The volumes also enable some comment on Arthur Pigou's stewardship as Marshall's literary executor in editing selections from his correspondence for *Memorials of Alfred Marshall* (Pigou 1925). Many of the letters included in that volume (for many years the most accessible form of Marshall's correspondence available) are reproduced by Whitaker with the note 'original not traced', thereby confirming the story told to me by Sir Austin Robinson in the mid-1980s that Pigou, not long before his death, had burned virtually all his private papers, including those of Marshall of which he was the trustee and that had not been claimed back by Mary Paley Marshall. A number of correspondents (such as Arthur Bowley, J. B. Clark and Maynard Keynes) whose letters were included by Pigou in abbreviated form either insisted on getting back the originals or had provided Pigou with copies only. These few preserved originals allow an insight into the nature of Pigou's editorial style in the matter of abbreviation. For example, a letter to Clark (11 November 1902, Letter 727, II, 412–13) omits only the opening paragraph in which Marshall mentions his corrigenda and addition sheet for the fourth edition (see Groenewegen [1992] for details on this aspect of Marshall's mania for revision) and altered a few words here and there. A letter to Bowley (3 March 1901, Letter 737, II, 305–7) leaves out an interesting paragraph with Marshall's comments on progress at the London School of Economics. It seems a pity that Pigou's alterations and omissions have not been signalled by the editor, though this omission, one of the very few shortcomings in the editing task that I can find, is easily repaired by those interested in following it up. Another minor criticism of editorial style that may annoy those with limited language skills is the decision to provide only a précis of letters in languages other than English instead of including a full translation of the text.

The haphazard discovery of Marshall letters in various parts of the world (interesting examples are Letters 901 and 981, III, 185–6, 269–70) suggests that many such finds are still waiting to be made. Marshall's own collection of letters addressed to him seems to have been partly dispersed on his death by his widow, at least if the contents of a letter from Sir Frederick Pollock to her in 1925 can be generalised. It suggests that she systematically returned correspondence with Marshall to their senders, provided that they were still alive (for details see Groenewegen 1995: 748). Often the publication of collected correspondence of an eminent person acts as a spur to new discoveries (as can be seen with the case of Ricardo and, to a lesser extent, Adam Smith). Marshall's proclivities as letter writer make it certain that many more of his letters remain extant, albeit hidden in various private, or even public collections. However, the potential for incompleteness of this collection in no way detracts from its quality. To illustrate its value as a treasure-house of the thought of Alfred Marshall, one of the newly discovered letters in this collection can be quoted to shed light on the view of economics that made its author famous. It also forms a fitting conclusion to this review by further revealing how fascinating this excellent collection is for the Marshall scholar and for those more generally interested in exploring the mind of the great economist:

> I believe that economics, like the science of navigation has two sides; one the analytical, which is based in eternal laws of nature; the other realistic, which constantly changes, as man's needs and resources develop. My attitude towards the science was set about 1867, when I was engaged in teaching mathematics in Cambridge, and thought more easily in the Mathematical language than any other. Under the guidance of Cournot and von Thünen, I was to see that Ricardo's analysis consisted in effect of a series of mathematical equations, in which rates of change in utility of production or any other economic quantity were expressed by differential co-efficients relatively to one or several variables: – *time, labour supply, capital supply, productive energy and skill* and so on. It seemed to me that Ricardo scarcely ever went wrong; though of course he never went more than a little way. The present generation has gone further, especially under the influence of books which appeared about 1870; but I hold that the new work has been of real value in direct proportion to its modesty, and inverse proportion to its claims to have substituted new fundamentals in place of Ricardo's.
>
> Realistic work on the other hand is transitional. The knowledge of realities possessed by Adam Smith and even Ricardo and Malthus was extensive and thorough. But few of their practical conclusions are applicable to the modern age of steam, electricity and education of the masses of the people. Perhaps aviation, the further progress of education and other causes not yet in sight may make our own realistic economics utterly obsolete a hundred years hence.
>
> (Marshall to Ludwig Darmstädter, 17 October 1910, Letter 981, III, 269–70)

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# 22 Maffeo Pantaleoni[1]

When Pantaleoni died on 29 October 1924, Sraffa (1924: 648) commenced his obituary with the comment that Italy had lost 'the prince of her economists'. Whether this was the normal, figurative usage of prince in this context, or a reference to that famous creation of Machiavelli as a bow in the direction of Pantaleoni's pioneering analysis of power in an article on the economics of the 'strong and the weak' (Pantaleoni 1898) is not clear (but see Amoroso 1925: 118). Sraffa also described Pantaleoni as 'conspiratorial', the 'Don Quixote' of Italian politics for close to thirty years, tilting at various windmills, sometimes with anti-semitic overtones (Dalton 1923) both in his brief career as radical deputy on the far left, as Minister of Finance in d'Annunzio's Fiume (1919), and as active government adviser crowned by becoming a senator under the new fascist regime during 1923, the last year of his life. His strong belief in the free market and the virtues of competition combined with equally staunch opposition to socialism explain his move towards fascism (De Viti de Marco 1925: 175) and enabled him also to be described as a 'reactionary anarchist' or, to use more contemporary parlance, a 'libertarian of the right' (Sraffa 1924: 649–50; Hicks 1983: 340–2).[2]

## A scientific portrait

Becattini (1987) has argued pertinently that Pantaleoni's economic work can be broadly classified into three stages. First came his pure theoretical work dealing with the economics of value and its applications to aspects of the theory of public finance on which he had written with great success during the 1880s (collected in Pantaleoni 1938). Next came work on applied economics of money and banking, crowned by his monograph *La caduta della Società Generale di Credito Mobiliare Italiano*, written during the early 1890s outside academe and described by Sraffa (1924: 648) as a 'veritable masterpiece comparable in some respects to Bagehot's *Lombard Street*'. Third came his interdisciplinary work, drawing together economics, sociology, anthropology and psychology, and generating his major political economy and politics articles written largely during the twentieth century (collected in Pantaleoni 1924; 1925c and, earlier 1904; 1909a; 1910) (see Magnani 1996). Of this work his essay on power

(1898), to which we will return below, is a striking example. This classification ignores Pantaleoni's many articles on the history of economics and economic methodology (in Pantaleoni 1936), likewise written during the second half of his life, and which include almost fifty biographies of Italian economists written for the original editions of *Palgrave*.[3]

Pantaleoni has sometimes been called the 'Italian Marshall' (Ricci 1925: 204–5), who combined the classical doctrine of cost of production in relation to value with the new theory of Jevons. Pantaleoni himself attributed this new theory to Jevons and Walras (Pantaleoni to Walras, 23 October 1883, in Walras 1965: Letter 591). In a letter to Edgeworth (15 November 1890, cited in Becattini 1987), Pantaleoni described Marshall as the '"new Ricardo" who had appeared in the field'. In a way resembling Marshall, Pantaleoni's own work combined classical economics in the manner it was developed by Ferrara[4] with the new marginalist theory of utility, and similarly to Marshall he moved out of the strait-jacket of marginalism in his later years when he realised that its actual potential was considerably less than its initial promise. Marshall himself thought highly of Pantaleoni, claiming him to 'have much truer mathematical instincts than Jevons, Walras, Launhardt and Co, and I may now add, Wicksteed' (Marshall to J. N. Keynes, 15 January 1889, Marshall Archives, I: 88). They met in 1890 during the Leeds meetings of Section F (Economics and Statistics) of the British Association for the Advancement of Science, with Marshall in the chair, and subsequently over dinner at Balliol Croft. The year before Pantaleoni had incorporated part of Marshall's pure theory of domestic and international value into his own *Principii di economia pura* (1889 [translated into English as *Pure Economics* 1898]), a matter to which Marshall drew attention in the preface to the first edition of his *Principles* (Marshall 1890: xii, n1) and again when these diagrams were finally published under his own name in *Money, Credit and Commerce* (Marshall 1923: 330, n1).[5]

Pantaleoni's qualities as 'thinker and writer' were probably 'surpassed … by his work as teacher. [Hence] Italian economists are few indeed who are not in some measure his disciples. First among these are Pareto and Barone' (Sraffa 1924: 652). With both of these distinguished 'students', Pantaleoni carried on an extensive correspondence, as he did with other economists both in Italy and abroad (Pareto 1962; Magnani and Bellanca 1991). He started corresponding with Walras in 1883 (the same year in which the rather limited Marshall-Walras correspondence had started), and later with Edgeworth, Seligman and Irving Fisher. This, together with his major work of economic theory, *Pure Economics* (1889 [1898]), created his fame in Europe and the new world. Only much later, after the Second World War, were his major contributions to public finance more generally recognised (Musgrave and Peacock 1958; Buchanan 1960), though his analysis of tax incidence had been critically appraised by Seligman (1899) at a much earlier stage. Another obituary described him as 'an exuberant genius, passionate and multiform, sometimes pursuing the most noble motives against his personal interests, as when he abandoned the chairs of Bari and Naples to strive against the authorities of the government' (Loria 1924:

653–4), while Seligman wrote to Taussig on first meeting Pantaleoni in Rome in 1895 that Pantaleoni is 'a man of wide reading and great ability … as well as uncommonly hospitable' (Seligman to Taussig, 31 January 1895, in Dorfman 1941: 123).

Pantaleoni's *Pure Economics* illustrates both his wide reading and his great ability which Seligman mentioned to Taussig. What Marshall was to affirm somewhat later to J. B. Clark as his principle of acknowledging predecessors,[6] Pantaleoni actually implemented in this book, crediting economists, often back into the eighteenth century or before, with originating a particular proposition or theorem. This saved him from what some people have called that 'unnecessary originality' (Arias 1925) characteristic of certain British economists, a factor more easily ascribed to an ignorance of the wider literature of the subject except for the most recent publications, a blight now sadly affecting the vast majority of contemporary economics graduates.[7] Pantaleoni's generous acknowledgements tend to hide the great novelty of his work, since it is rare theory in economics that in its foundations does not have a precursor in some earlier author. For this erudition alone, the book makes for humbling reading. For example, Pantaleoni's knowledge of the literature frequently crosses national boundaries and draws on French, German, Austrian and English economics as well as the substantial economics tradition of Italy.

This chapter focuses largely on the contents of Pantaleoni's *Pure Economics* because that book brings the principles continuously back to their simplest foundations. More fundamentally, its strikingly honest declaration that its contents are unadulterated hedonistic economics is instructive to alert modern readers to both the strengths and weaknesses of his approach to the subject. Pantaleoni's open reliance on the universality of the pleasure/pain principle in guiding economic decisions for rational human agents, likewise stresses the problems inherent in an economics constructed on such foundations, problems of which Pantaleoni clearly showed himself to be aware. However, this application of the utilitarian calculus yielded him also some unusual results in capital, wage, profit and interest theory, which continue to be of interest for more than just historical reasons. Moreover, the attempt to base all economics on a simple unifying foundation of this nature – an attribute this work shared with that of some of the Austrians (Mises 1980: 97–100) – illustrates the dangers in such an attempt at simplification and generalisation. Pantaleoni's own realisation of this, an understanding he shared with some of his contemporary colleagues from Italy and Austria, led him to the development of a broader economics more fruitful for conclusions about the world in which he, and we, live (see, for instance, his essays [1901; 1909b]). Examining such shifts in practice is instructive for the present generation.

The subsequent sections of this chapter are as follows. The first section looks at Pantaleoni's discussion on the subject matter of economic science in relation to the hedonistic principle and its application in terms of utility. The next section draws out some problems this raises for the theory of value and equilibrium, particularly in the context of demand and cost of production, and for

Pantaleoni's position on the usefulness of partial versus general equilibrium. Subsequent sections then briefly evaluate Pantaleoni's more specific applications of the principles of pure economics to money, capital, and interest and distribution with special reference to wages, as well as to some public finance problems. The effective break with this 'pure economics' signalled in Pantaleoni's work in the economics of power and in his 'semiology of crises' and, more generally, in his belief in the necessity for an interdisciplinary treatment of real questions, enables some general conclusions from this evaluation. This approach fails to do justice to the whole of Pantaleoni's rich legacy of economic writings (Mortara 1925), including his lectures (Bini 1994) which made him so influential in Italian economics at the turn of the century. However, it enables one to focus on what many have seen as Pantaleoni's leading economic work and on some, but by no means all, of his other major contributions.

## The subject matter of economics in relation to the hedonistic principle

Pantaleoni (1889 [1898: 3]) concisely defined economic science as 'the laws of wealth systematically deduced from the hypothesis that men are actuated exclusively by the desire to realise the fullest possible satisfaction of their wants, with the least possible individual sacrifice'. This definition is then immediately identified with the hedonistic premise of economics, on which all economic theorems are said to depend. However, economic theorems must invariably be supplemented by the 'premises of fact' derived from technological data and from the 'biological, psychological and sociological laws that govern man and other organic beings'. Hence, contrary to Senior (1836 [1951: 26–7]), it is wrong to speak of economic laws of decreasing productivity or definite proportions because these are propositions drawn from technical or other types of laws extraneous to economics even if useful to it. Economics is solely concerned with problems *de maximis et minimis*, that is, 'with problems of obtaining a given result with the smallest comparable means or of a maximum result from any given means'. In short, economics or political economy – Pantaleoni treats the terms as synonyms – is therefore not the science of wealth in general but of those matters relating to wealth to which the hedonistic hypothesis can be applied. This in fact enables the identification of economics with the science of value, as Pantaleoni concludes his introductory chapter.

Pantaleoni's approach to the scope of economics presumes that the hedonistic hypothesis is a matter of fact. To substantiate this, Pantaleoni discussed at length whether other motivating forces are possible. Though this is a proposition incapable of proof, it is nevertheless a useful way to demonstrate that this motive is 'universal and most powerful and so multiform that seemingly diverse motives are really reducible to it'. In true evolutionary spirit, a sense of the dynamics Pantaleoni tended to add to his economics, and following Spencer (1978: Bk I, ch. 6]) and Hearn (1864: ch. 21) the hedonistic postulate is identified with the principle of self-preservation and is described as essential for survival of the species. With some exceptions, the remaining discussion of the hedonistic hypothesis is fairly standard. The evolutionary principle of self-preservation allows Pantaleoni to apply an aggregated hedonistic hypothesis to tribal communities, while the hedonistic calculus is said to consist of 'judgements of value' by which to make pleasures and pains commensurable. Following Gossen, two theorems of hedonistic maxima are then explained, given the 'law of decrease of protracted and repeated enjoyments'. However, the question of quantifying pleasures and pains is not substantially addressed here but is postponed to the treatment of value.

The other chapters of the first part of *Pure Economics* deal with wants (ch. 3), the classification of commodities defined as the means for satisfying wants (ch. 4), and notions of wealth and their comparability (ch. 5). The monetary approach to want measurement is regarded as unsatisfactory because it assumes a unique relationship between want satisfaction and a particular commodity visible in its price, whereas in actual fact the amount spent on a particular item depends on the prices of all other commodities as well. Likewise, considerations of the marginal utility of money are abstracted from at this stage,[8] but Pantaleoni fails to address the question satisfactorily at this, or at later stages, of his argument (Ricci 1925: 190–3). When utility is treated in the subsequent chapter, the question of its measurement is likewise not explicitly addressed, though its quantification is invariably implied, sometimes in terms of costs. The latter are introduced as the disutility of labour and abstention from consumption akin to Marshall's real costs. In the chapter on wealth which concludes the preliminary part, these measurement problems are more fully recognised and comparability of wealth across persons, nations and time is held to be intractable until the valuation problem is solved.

A number of comments can be made on Pantaleoni's preliminary discussion of the hedonistic foundations of pure economics. Much of it resembles the approach to defining the scope of economics taken by Robbins (1934) forty years later, except for its explicit hedonistic contents shunned by the latter. Moreover, Pantaleoni does not attempt to derive what turned out to be unwarranted positivist conclusions from this definitional approach (Caldwell 1984: ch. 6). These formed the basis for Robbins' endeavour, which was probably inspired to escape the unpalatable inferences from utility theory for progressive taxation and other theorems of welfare economics (Roy 1984: esp. 360–2). Pantaleoni's strong identification of economic decision-making with the hedonistic calculus at once constitutes its strength and its weaknesses. Its strength is the clarity in which these foundations are set out in all their generality, hence making their limitations visible. Its weaknesses arise from the problem of quantification which bedevils this calculus if it is to be made operational, and which not only plagued Pantaleoni but many other contemporary writers on the subject who wished to build a pure economic science on this foundation (see Stigler 1950: 117–30 for examples).

***Value and equilibrium***

Value, treated as a relative exchange ratio, 'an abstract relation between two quantities of two things' which can be simplified by expressing it in terms of a numéraire (1889 [1898: 123]),[9] is the subject of the three chapters at the core of Pantaleoni's pure economics. The first of these chapters is largely definitional and examines the causes of exchangeable value as well as the limits between which value is determined. These limits are initially calculated for an isolated individual and for an isolated exchange. The former enables Pantaleoni to identify what he calls 'economic production decisions' as part of the economics of exchange; the latter demonstrates his awareness of the problem of indeterminacy in this seemingly simple exchange situation of two commodities and two individuals. The next chapter presents the analysis for the polar cases of free competition and monopoly, while the third chapter deals with value in terms of supply and demand. A great deal of this analysis is standard, derived from recognised authorities such as Gossen, Cournot, Jevons, Menger, Walras and, especially for the final chapter, Marshall. However, a number of issues indicate novel features in Pantaleoni's treatment which highlight anomalies in this type of theory.

One anomaly concerns measurement. Although much of Pantaleoni's analysis is in terms of utility, its measurement is rarely broached directly. Axes in diagrams tend to be unlabelled but imply Pantaleoni's belief that utility/disutility is measurable in terms of some specific unit, perhaps the 'util', 'ophelimity' or 'amount index' ascribed to Fisher, Pareto and Marshall respectively (*ibid.*: 128, n1). The measuring rod of money is also frequently used in the analysis without specifying the underlying difficulties. This applies to Pantaleoni's treatment of the 'demand side' of the problem of value determination, and especially to the cost side. A cardinal utility measure appears to underlie Pantaleoni's law of demand. 'In every market there exists a determinate scale of degrees of utility of the various increments of the commodity in question for each individual purchaser' (*ibid.*: 153). However, the issue is more complicated. Most final utility is influenced not only by the available quantity of the commodity under consideration, but by many commodities, related and unrelated, thereby giving the assumed utility schedules a complexity whose consequences Pantaleoni fails to analyse. Costs are initially defined as 'the sacrifice or pain submitted to in order to obtain a commodity' (*ibid.*: 170–1). This cost concept is argued to be the equivalent of final utility, but the measurement of pain (disutility) is otherwise not addressed and is implicitly identified with quantities of labour without recognising the simplifying assumptions such identification entails. It is therefore not surprising that Pantaleoni makes no attempt to solve the aggregation problems for psychic (real) costs when abstinence as well as labour is involved. Pantaleoni's simplistic identification of final utility and cost enables him to argue the formal identity of comparative utility and comparative labour costs, and thereby to suggest that the new hedonistic analysis only replicates the old results reached by Ricardo and John Stuart Mill by new means (*ibid.*: 143, 173, n2). Costs are also occasionally defined as alternative costs in terms of commodities foregone. Pantaleoni argues that difficulties in the treatment of costs increase when questions of social economics are broached, that is, when isolated or individual transactions are no longer suitable cases. Solutions treating cost of production in such circumstances in terms of aggregate wage and profit bills are seen as a 'tautology' while, in addition, Wieser's law that value of the consumption (first order) good determines the value of the agents' services which help to produce it, demonstrates that causality runs from value of final commodities to value of productive services. These considerations hinder Pantaleoni's cost discussion in terms of 'varying productiveness' (returns), a difficulty he largely avoided by regarding many of the issues raised as deriving from 'pure technology' and not relevant to pure economics.[10] Here Pantaleoni parted company from Marshall, since Marshall regarded the investigation of the laws of returns (costs) as a crucial part of the theory of production and supply in which technical matters of division of labour, technology and industrial organisation could not be shunted aside as 'uneconomic' *à la* Pantaleoni and later Robbins (Marshall 1890 [1920: Bk IV and Appendix H]). In short, Pantaleoni's cost analysis is virtually non-existent once the simplifying crutches of isolated and individual exchanges are abandoned for more realistic situations.

Pantaleoni's analysis of supply and demand further illustrates this flaw. Although explicitly based on the theories of Ricardo and Marshall, Pantaleoni confined the discussion to the form of the analysis but not its substance. The supply curve (alternatively defined as the curve of costs or expenses of production) is never clearly explained but simply taken for granted. Neither is the Marshallian demand function redefined as a schedule of quantities and prices (rather than utilities). Aggregation problems are simply ignored. It is therefore not surprising that in this chapter Pantaleoni feels much more comfortable with the reciprocal demand curves in examples of isolated exchange between two countries with 'close markets'. Drawing on Marshall's privately printed pure theory (Marshall 1879), this analysis is reproduced to reveal theorems of exchange rate (terms of trade) determination, and of stable and unstable equilibria solutions of these rates of exchange (Pantaleoni 1889 [1898: 205–9]).

In this context again, many of the problems are either hidden or ignored by Pantaleoni, most strikingly in the context of the meaning to be assigned to 'equilibrium'. As Ricci (1925) has indicated, Pantaleoni is neither an adherent of general equilibrium (despite his close friendship with Pareto and Barone) nor of partial (particular) equilibrium (despite his affinities with, and indebtedness to, Marshall's pure economics). However, the interdependence notion of utility Pantaleoni had developed in his theory of value suggests that notions of general equilibrium would have been more appropriate for at least parts of his analysis (but see Magnani 1993: 325–6), while the Marshallian framework of supply and demand he adopted for a significant part of the work made partial equilibrium also more appropriate. Ricci (1925: 202–4) suggests that Pantaleoni's actual position on this subject was an intermediary one. Just as he did not want to belong to any specific school of economists,[11] he does not seem to have wished to take sides in the debate on this issue between the schools of Cambridge and

Lausanne. Pantaleoni's 'intermediate equilibrium' position suggests a predominant interest in discussing related prices and commodities, or those covered by the hypothesis of a 'family of goods'. Pantaleoni identified five such families of goods for analytical purposes. These are instrumental goods, complementary goods, competing goods, substitutes and twin (joint) products such as mutton and wool, beef and hides. Such notions effectively led his analysis more into the realistic direction of Alfred Marshall and away from the more abstract and theoretically pure notions of general equilibrium, an approach which, according to Ricci, Pantaleoni also shunned because of a self-confessed lack of mathematical ability. Pantaleoni's attitudes to equilibrium analysis reveal an increasingly apparent inclination on his part to shy clear from the pleasures of writing pure theory to concentrate instead on the far more difficult task of its application to significant problems.

### *Application of the theory of value to specific commodities*

Again like Marshall, Pantaleoni concludes his book with the application of the theory of value to some specific commodities, namely money, capital, natural agents and labour. In other writings, he applied it to problems in public finance (Pantaleoni 1883). The solutions Pantaleoni offered on these problems tended to follow Austrian theory (Bellanca 1993a: ch. 2). For example, Wieser's law of imputation was invariably invoked in the specific illustrations Pantaleoni gave in his pure economics which were all devoted to 'instrumental goods'. However, these more specific illustrations also demonstrate the inadequacy of the hedonistic principle to deal satisfactorily with the values of these instruments except in the most simple manner. Hence these very interesting chapters, particularly when combined with Pantaleoni's public finance contributions, help to illustrate his perceived limitations of pure economics. They also reveal the richness of his thought when it transcends the shortcomings of the theorems he had developed in his major text. Some examples clarify this feature of his economics.

### *Capital*

Pantaleoni defines this as a 'complementary-instrumental' commodity and, following Jevons' 'fundist' approach, he treats it as stored up, 'free' subsistence commodities by which to maintain labour. Interest is explained by the marginal productiveness of these commodities in terms of final output either of intermediate goods or, more generally, final consumption goods. At the same time, Pantaleoni strongly denies that interest can be explained by the difference in value between present and prospective commodities (1889 [1898: 252–3]). Like that of Jevons, Pantaleoni's interest analysis is therefore a real productivity theory, explicitly differentiated from the theory of Böhm-Bawerk and completely separated from monetary considerations associated with the rate of discount and credit. Hence on this subject at least Pantaleoni adheres rigidly to the classical dichotomy.

### *Natural agents and rent*

From Ricardo's classical treatment, Pantaleoni distinguishes three theories: a *historical* theory on the origins of rent; a *statical* theory which determines the nature and utility of rent, and a *dynamic* theory of the causes tending to increase rent over time (1898: 265). Intensive and extensive margins are identified and interrelated, and rent is defined as the effect of price in line with Wieser's law. The dynamical theory is identified with Ricardo's problem of explaining the rising share of rent in total product under conditions of economic progress, associated with Malthusian population growth. Pantaleoni denies this can be proven *a priori*, if only because increased population requires an available food supply before it can be translated into new food supply through agricultural production. This is a simple inference from his fundist approach to capital theory. The historical theory of rent is mentioned as a valid curiosum of no analytical significance. It, however, demonstrates the occasional need to combine the hedonistic principle with historically specific facts on techniques of production and the nature of wants. Rent theory is not confined to land or similar natural agents by Pantaleoni. Following Walker, Pantaleoni used rent theory to explain differential earnings of entrepreneurs with unequal capacities.

### *Labour*

Hedonistic principles see labour as a 'negative commodity' and define wages in general as its simple recompense. Differential skills are explicitly treated as a problem of capital invested in training or as a problem of rent for scarce, differentiating qualities in work skills. Once again, Wieser's law suggests that efficiency of labour – measured by marginal productivity – determines wages to the extent that it sets the maximum limit of what wages can be. Given labour's inevitable complementarity with capital for reasons already explained, labour's net product after capital has been paid constitutes the economic wage of labour. The static wage theory built on this premise is then identified with the wage fund theory of the Mills' (that is, James and John Stuart) because this can determine wages given the productivity schedules of labour and capital. This view resembles Wicksell's interpretation of Böhm-Bawerk's theory and enables Pantaleoni to argue that significant parts of the wage fund theory, particularly as elaborated by Cairnes, remain valid. The dynamic theory of wages is described as more complex, because it rests on 'flow' considerations. Unfortunately, Pantaleoni does not develop this notion further, apart from the obvious statement that capital needs to be continually renewed to employ labour, making reproduction a continuous process. The analytical problems in this proposition are not grasped, but it is nevertheless surprising that Pantaleoni argued that dynamical results for wage determination are identical with those reached in the statical theory.

### *Money*

In spite of Pantaleoni's limited perspectives on the functions of money (he confined them to its role as a medium of exchange and as denominator of value), the chapter on money is one of the more interesting in the book. The evolutionary principle of natural selection is used to explain the adoption of the precious metals as money substances, though their natural attributes for this role need to be strengthened by giving coined metals their legal tender quality. Value of money is explained by the quantity theory, a special form of the theory of supply and demand, in which supply (the quantity of money) is defined as the product of the physical money quantity and its velocity of circulation (1889 [1898: 231]). Although credit is discussed, together with bimetallic systems and even pure fiat currencies such as paper money, Pantaleoni's theory is confined to the mono-metallic system which the world was gradually embracing from the 1870s. The value of money as purchasing power is then compared with the value of money in loans (interest or the rate of discount). These are argued to be interrelated, most generally varying in opposite directions, but in other cases can be seen as rising or falling together. The exceptional cases are particularly interesting, since they highlight the 'abnormal' situations relevant to explaining crises. From that perspective alone, they are worth quoting in full. They illustrate how at least on some occasions the peculiar can swamp in importance the normal behavioural consequences based on the hedonistic principle, hence transforming the particular into the general:

> 1st. Let us call price of the bill the sum of money paid for it by the purchaser (the banker), amount of the bill the sum expressed on the face of it as due from the party who sells it, and discount the difference between price and amount. Then, the higher the price, the greater the discount, and the higher the price of a bill, the smaller is the discount. But the lower the price, the higher is the value of money, i.e. its purchasing power in respect of bills. Therefore, the value of money varies inversely as the variations in the price of bills, and directly as the variations of discount (McLeod's theorem).
>
> 2nd. As money is employed not merely in purchasing direct commodities of single productiveness, but is also frequently borrowed for the express purpose of purchasing direct commodities of manifold productiveness, as also instrumental commodities (such as houses, lands, etc.) and, above all, shares, bonds, and stocks, it happens that in the largest money markets, which are also the largest markets for such securities, a fall in the rate of discount, increasing the amount of disposable money, is concurrent with a rise in price both of these commodities of manifold productiveness and of instrumental commodities, for it gives rise to a greater demand for them.

> Hence a fall in the rate of discount is accompanied by a rise in price of certain commodities, i.e. by a fall in the value of money with respect to such commodities. And vice versa, if the rate of discount rises, the holders of shares, bonds, stock and other interest-bearing securities will find it profitable to employ their money discounting bills rather than in holding the former. Hence sales will take place, with the result of sending down the prices of securities and increasing the purchasing power (value) of money with respect to them.
>
> 3rd. If, owing to whatever cause, there be a large and sudden demand for money, those who need money will be obliged to sell any kind of commodities they possess, thereby sending down the prices of direct and instrumental commodities. At the same time the rate of discount will rise, owing to the increased demand and diminished supply of money. Therefore again; the rate of discount varies directly as the value of money, and inversely as price.
>
> 4th. A sudden influx of money will provisionally and temporarily facilitate discounts, and the increased amount of these will gradually send up prices, i.e. will diminish the purchasing power of money, bringing it down to a new level. The opposite effect will result from the efflux of money in any considerable quantity.
>
> (Pantaleoni 1889 [1898: 236–7])

### *Public expenditures*

Pantaleoni also applied the hedonistic principle to budget determination with special reference to public expenditure decisions (for a detailed discussion see Magnani 1995; Bellanca 1993a: ch. IV). Double judgements are involved in this process. First, 'the intrinsic utility of the expenditure' item has to be decided; 'secondly, its utility compared with the utility of equally possible expenditures, whereby the expenditure in question is given a *preference*'. When taxes are earmarked to specific items of expenditure, two further considerations become relevant. Utility from the expenditure needs to match the sacrifice imposed by taxation in general, and second, that imposed by the specific tax assigned to finance the expenditure in question (Pantaleoni 1883: 16). However, since general taxation is the rule, the judgements are reduced to those needed to ensure that total satisfaction from public expenditure matches aggregate sacrifice imposed on taxpayers. It can be noted that many of the theoretical problems inherent in even this simplified process are not fully analysed by Pantaleoni.

However, Pantaleoni does raise a number of auxiliary problems. Inequality of aggregate expenditure and revenue is one problem associated with this calculus, and the theory tends to assume a balanced budget. Such inequality problems are solved in the theory of public debt (Pantaleoni 1883: 18–19). The theory implies that revenue and expenditure decision-making are interdependent, not causal, as the then conventional theory, in which revenue determination followed the determination of expenditure needs, presumed. This interdependence implies the unity of the budget transactions as a whole, since individual expenditure decisions, for example, rest on judgements made with respect to other expenditure items, while the whole of the budget reflects its total utility relative to the aggregate sacrifice to be imposed on taxpayers.

Most interesting are Pantaleoni's speculations about how this theory of budget-making is approximated in practice. Incremental budgeting, the traditional division between ordinary and extraordinary expenditures, fiscal rules about the necessary relationship between aggregate expenditure and ordinary revenue, are aspects of this approximation process recognised by him. In this context, Pantaleoni draws attention to the difficulties in accurate forecasting of revenue raisings. At best this forecasting is an imperfect art. Despite this problem, and the difficulty in deciding whether over- or under-estimation of revenue is the more serious error, Pantaleoni argued against prudential rules directing finance ministers to err on one side or the other. Estimating the burden of taxation is considered to be even more difficult, largely because this raises psychological and political issues of public tax tolerance. Administrative convention and experience in this way combine to approximate solutions to a difficult theoretical problem, a type of 'trial and error' solution later invoked in other practical applications of the new value theory by others.[12]

### *Taxation and public debt*

Pantaleoni discussed the transferability of the public debt to future generations as contrasted to that of taxation, in a detailed examination of what is now called the Ricardian equivalence theorem (Pantaleoni 1891). Its underlying premises are identified as three. First,

> because the goods absorbed in the form of taxation or public debt can only be current goods, both taxation and the public debt can only be a burden on the present generation.

Second, because

> the burden of having to pay interest forever on a given amount of capital amounts to the same thing as the immediate payment of that same sum of capital, the debt incurred in repaying such interest diminishes the debtor's present wealth by the same amount as would covering the capital with tax.

Third, 'on the supposition that it may be advantageous to redeem a perpetuity or limited annuity with a lump sum payment', it can be argued that

> the debt represented by such an annuity can only be a burden to the person who originally contracted it.
>
> (1891: 45)

Despite the persuasiveness of each of these arguments taken individually, each can be countered with a *non sequitur*. The first proposition needs to be examined relative to the capital stock which is left after the debt is incurred. If the debt exceeds this capital stock, the future generation will be saddled with the burden of interest repayments. The essential consideration for Pantaleoni is whether the wealth consumed by the present generation constitutes a mortgage on that wealth. The second proposition about the equivalence of a perpetual interest payment and a specific capital sum is also irrelevant to the transferability of a public debt burden when it can be shown that, together with the debt, the future generation inherits the sum of capital corresponding to its interest liability. This merges into the third proposition. Following this analysis of the Ricardian premises, Pantaleoni concluded that since some of these circumstances are likely to occur in practice, 'debt is identical to taxation in so far as fiscal burden is concerned' (1891: 46–7). However, with debt devoted to furnishing actual capital (real resources) from another economy, Pantaleoni argues that burden can be transferred to future generations, though he warns that this type of debt is not simply identical to debt from abroad. The last proposition is a straightforward corollary of the first Ricardian premise. If real capital has to be imported by means of a loan, debt in that manner exceeds the existing capital stock, and liability is on the future generation.

Although this analysis followed the publication of his *Pure Economics*, Pantaleoni analysed debt incidence on classical Ricardian lines. He did not draw, therefore, on the new hedonistic principle with its emphasis on utility analysis to reach the subjectivist public choice arguments which Buchanan (1958: 180–4) later developed on the subject. Neither did Pantaleoni fully utilise the capital theoretic arguments on the productivity of capital as developed in his *Pure Economics*. Real additions to capital stock, if productively used, enabled debt servicing without generating future burdens, so that only public borrowing for unproductive purposes fell into the range of problems he was analysing. The monetary and effective demand considerations which inform contemporary debate on this issue were not even considered by Pantaleoni.

Pantaleoni's applied economics broke new ground in a variety of areas. Much of this came in subjects where the pure economics he had developed from the hedonistic principle needed to be supplemented from other spheres of thought, or was not required for the task at hand. The latter is the case with his public debt incidence analysis; the former with the novel propositions in his theory of money and public expenditure. Even in the theory of distribution, portrayed as a direct application of the theory of value, when the dynamics of the problem are to be canvassed, the hedonistic principle is deemed insufficient. Pantaleoni's early applied economics therefore implicitly demonstrated the limitations of his pure economics.

## The limits of pure economics

The narrowness of pure economics was first argued by Pantaleoni (1898) in his article ‘An Attempt to Analyse the Concepts of “Strong” and “Weak” in their Economic Connection’, and was later implied in a number of similar essays (see esp. Pantaleoni 1901; 1909b). The examples of the 1898 article draw on the production and distribution of wealth. To limit this to exchange phenomena, as he had done in his *Pure Economics* treatise, means ignoring inheritance, ‘laws on property and its transfer’, many forms of ‘remnant and new status’, ‘war’, ‘taxation’, ‘theft’, ‘cheating’, and seems

> to imply vitiating the whole argument in such a way as to allow us to construct upon it whatever arbitrary theory we like. And similarly to speak of production of wealth and not see oppression and spoliation, which are quite as fundamental systems of production as, say, the rearing of sheep is, must be arbitrary; nor is it possible to push the methods of production which consist in spoliation aside by simply calling them distributive processes, as there is not a bit more of ‘distribution’ in them than there is in the fleecing of sheep, or in the collection of honey!
>
> (1898: 184)

### *The strong and the weak*

The implicit assumption of individual (social) strength (and weakness) in this description of economic activities, Pantaleoni argued, needs analysis, as does the degree to which the principles of pure economics are operational in solving these matters. Pantaleoni’s discussion of this subject enables him to clarify both the limitations of pure economics and to criticise others who in their economic treatises had stepped outside the boundaries of the science. The essay is therefore an insightful attempt at defining what economics can, and what it cannot, offer on issues of power, relative strength and weakness.

By way of a starting point, Pantaleoni identified three types of political settlement which arise in a world divided into the strong and the weak. The first is that of destruction, through execution or expulsion or what, in the case of competing productive or commercial rivals, Pantaleoni sees as a predatory settlement in an interesting anticipation of recent nomenclature.[13] The second is parasitical settlement, illustrated by Pantaleoni with Marx’s theory of exploitation, the appropriation of Ricardian rent by landlords and the position of some creditors or bond holders as an anticipation of Keynes’ views on the euthanasia of the rentier class. Last is mutualism, where cooperative outcomes are predicated to harmonise potentially conflicting interests of the strong and the weak. Pantaleoni made some interesting observations in this context. Cooperation and mutualist settlements are described as a concession to enable acceptance of the possibility of socialist Utopia. This is illustrated by the treatment of the state in ethical theories as a form of mutual organisation despite the reality of much ‘fighting in shifting [tax] burden[s] on certain shoulders rather than others’, and disputes about the distribution of the benefits of state expenditure (Pantaleoni 1898: 188). Only two examples of mutual organisations immune to the laws of supply and demand or the exercise of violence are identified by Pantaleoni:

> first, sexual relations which always put to the exclusive charge of one sex the enormous labour which consists in rearing children; secondly, religious unions … where it is the will of every member to take the largest possible burden of trouble and misery upon his own shoulders.
>
> (*ibid.*: 189)[14]

Pantaleoni then explains why the concern with strength and weakness so central to sociological and socialist systems is virtually neglected by economists. 'Economics appears substantially as the science of *voluntary* and therefore peaceful settlements'. This does not mean that economists have invariably ignored violent settlements; mercantilism was largely a system of power aiming to increase national strength; private property was often described as begotten in violence; slavery was frequently discussed in economic treatises. However, by concentrating on contracts, economics tends to eliminate strength and weakness because economic contracts assume equal outcomes between more or less equal parties.

Recent economic treatises (Pantaleoni's example is Marshall 1890 [1920]) have moved outside this position. This is illustrated in the first instance by Marshall's discussion of the wage bargain. More heroic positions on relative strength are apparent in Marshall's statement that businessmen and students can estimate their comparative strengths quite accurately and in some of his heredity inferences. Examples are Marshall's attribution of national weakness to situations such as that in California, where Chinese replace white skilled workers, and when 'strong' people defer marriage or limit the number of their children in other ways. Such judgements invite the danger of turning 'economics into homiletics' (1898: 195). They also ignore the long tradition in economics of confining itself to voluntary, or desired, activities, which make interpersonal, let alone inter-nation or inter-race comparisons of the type in which Marshall indulged, a hazardous if not totally inappropriate procedure. Economics *qua* economics has in fact little to contribute on the comparative estimation of strengths and weaknesses. A favoured measuring rod of wealth or money income can give rise to ambiguous results, though in some cases can usefully be reflected in the shape of the indifference curves used to analyse bargaining situations. Likewise, utility is an inaccurate measuring device to test strength and weakness in the nature of desires and enable statements contrasting the liking of 'savages … for the wants of the moment' with the foresight of civilised races so sensitive to the wants of old age and of posterity (*ibid.*: 199). Such ambiguities are shared with anthropological, moral and aesthetic criteria for distinguishing strength and weakness, an ambiguity which is heightened with the simple passage of time. Pantaleoni illustrated the historically relative nature of such yardsticks by intertemporal estimates of the strength or weakness of the Chinese, generally considered as weak by contemporary

Europeans. This neglects, he argues, their highly civilised state going back thousands of years, much of it before European civilisation, and it ignores the immense Chinese potential for regaining their lost comparative strength at a later stage of history. In short, the problem of analysing strength and weakness is immense, unless time is deliberately confined to very short periods, and unless 'the indeterminateness of what strength really is' can be satisfactorily overcome.

### *Crises*

The inadequacy of pure economics is even more strikingly illustrated in Pantaleoni's discussion of crises. Attention has already been drawn in this chapter to his identification of exceptional cases in the relationship between interest and the price level from extraordinary demands for money, monetary inflows, price expectations and fluctuations in bond prices. However, his systematic analysis of the subject came over two decades later when Pantaleoni analysed the crisis of 1905–7 (Pantaleoni 1914 [1925]) in the context of assessing events associated with a legal dispute over delayed delivery of orders for carriages and other rolling stock between Italy's national railways and the French railway equipment firm Arbel. This involved an investigation of the 1905–7 industrial boom and its subsequent collapse, with special reference to the course of the cycle in the heavy metal industrial sector. This analysis contains much of methodological interest about the manner in which the mature Pantaleoni tackled the investigation of practical economic questions.

By way of a starting point, Pantaleoni proposed to treat the problem of cycles and crises as a medical problem involving the identification of symptoms, and thereby to adopt the medical solution in terms of *autopsy*, *diagnosis* and *prognosis* (1914 [1925: 305]). This is essential because of the complexity of the phenomenon, already apparent from the fact that crises tend to take different forms: monetary, industrial, agricultural, commercial and the general crises which combine features of the others. The 'medical' examination of crises by way of their autopsy, prognosis and diagnosis, is conducted on statistical lines. The route Pantaleoni takes is in fact that taken by W. C. Mitchell, the American economist (Mortara 1925: 216), an author then also working on the problem in a factual way, the approach more generally adopted by contemporary European researchers of crises. After identifying the statistical cycle, Pantaleoni diagnosed its major cause as excessive demand generating a boom which in turn induced the crisis. The prosperity during the boom is indicated and measured by price changes, interest rates and profit rates, with the proviso that such price movements, even if general, do not necessarily affect all commodities (Pantaleoni 1914 [1925: 310–11]). In fact, it can be argued that the price movements, and the associated output movements, are not synchronised at all in any precise way, due to specific features of cost curves (whether they exhibit constant, decreasing or increasing returns) and lags introduced by the presence of stocks. Booms, however, did not inevitably translate into prosperity. Excess demand in agriculture, Pantaleoni noted, though profitable for the producers, imposed hardship on other sections of the community. Likewise, harvest failures affected the community adversely from rising prices and falling demand. More generally, he saw cycles as a cumulative movement, in which consumption feeds production which in turn stimulates consumption.

The 'real' factors of the cycle are combined with monetary fluctuations, brought about by the varying elasticity of money supply relative to changed demand for money. This in turn affects the rate of interest and discount rate, setting up movements in interest rates and the price level which are contrary to the relationship suggested by pure theory. During the course of the boom, liquidity becomes more important and credit contracts shorten to enable more speedy renegotiations of the conditions on which credit is offered. Such monetary factors are first reflected in interest and discount rates, then in the prices of securities, and ultimately in share values, first of the industrial banks and then of industrial firms. Other signs of a boom, though generally delayed for a period of eight to twelve months, are volumes of railway and shipping traffic.

The previous two paragraphs have focused on the symptoms of the crisis, on which the analysis of its form and movement has to be based. Their identification enables Pantaleoni to return to the methodological issues earlier made in terms of his medical analogy: science has to be able to predict and forecast cycles, and crises need to be predicted to enable successful implementation of remedial action.[15] The difficulty in the diagnosis arises from the simultaneous presence of secular movements, periodical or cyclical variations and accidental shocks to the system. It is easy to distinguish between the stages of prosperity, stagnation and depression. The art is to distinguish the cyclical variations from both the secular and from temporary changes.

The remainder of Pantaleoni's long report shows how he dealt with these problems of autopsy, diagnosis and prognosis. His statistical method draws on an enormous amount of data on output, commodity prices, exports, imports, financial flows, interest rates, traffic movements and measures of the labour market such as unemployment data, job vacancies relative to applicants, wage movements and data on the prevalence of strikes. These data are disaggregated by commodity groups or by specific commodities and presented on an annual, quarterly and, data permitting, on a monthly or weekly basis. They are presented in tabular form or graphed, and at one stage by means of a single summary indicator. Theory guides this selection by identifying the relevant series for study and by indicating the possibility, and nature, of the lags so essential in drawing valid conclusions from the turning points in these data. Although these data enable Pantaleoni to frame conclusions about the phenomena he is investigating – for example, the crisis of 1906–7 was one of excess demand for industrial products in the developed countries of Europe and North America, with the peak during 1907 followed by a second, larger peak some months later – this inductive exercise has limitations from the scientific point of view. It can only be retrospective diagnosis and not prediction (Pantaleoni 1914 [1925: 363]), nor can it be precise because of the diverse signals given in the time series about turning points and maxima. Implicitly, the science of pure economics is therefore found wanting for explaining and analysing the complex phenomena of cycle and crisis, since its theorems are insufficient, and in the case of monetary factors even contradict the facts. Hence they are not very useful to assist prediction by the investigator, or enable precise identification of the turning points. In this sense, economics is an imprecise subject and the required factual and statistical analysis needs to modify and renovate theory continually on the basis of new experience. In short, for many interesting and important questions, economic theory is at best an imperfect instrument.

## Concluding comments

This chapter has done little more than to identify some major features of Pantaleoni's vast *opus* in order to show both the diversity of the thought of this great economist and the relevance of some of that thought for today. The focus has been deliberately on the pure economics as contrasted with Pantaleoni's essays in applied economics, both directly in his application of the pure economics to specific commodities and, more generally, in his applied analysis of strength and weakness as important social categories, and the phenomenon of crises as an aspect of the reality of capitalist production. This enabled demonstration of both the strengths and the weakness of the hedonistic hypothesis which still underlies so much modern economics, albeit in a largely hidden way.

The strength of that foundation as exemplified by Pantaleoni was the possibility of constructing a pure economics of value and exchange on a single principle of human behaviour, which to him seemed robust as a general explanatory factor of human motivation, even capable of defence from an evolutionary perspective. However, this strength of the hedonistic hypothesis was more than offset by weaknesses in measurement and aggregation, and its limited use for understanding specific situations beyond activities such as isolated choices and exchanges under conditions of barter. The hedonistic principle in particular was deficient in analysing productive activities outside exchange, money and the economic behaviour of the state, let alone broad issues of strength and weakness and the important phenomenon of cyclical fluctuations. It seems therefore reasonable to conclude that the mature Pantaleoni implicitly abandoned the optimistic vision of the worth of pure economics which his youthful theoretical speculations had created.

As discussed in this chapter, Pantaleoni's work has several features which present practitioners can do well to emulate. These are as follows. First, there is his scrupulous honesty in acknowledging anticipators and explicit recognition of the work of predecessors and contemporaries. A corollary of this practice is the need for wide and extensive reading, including the classics, to enable making such acknowledgement satisfactorily. Second, there is his enormous catholicity, which shunned dogmatic adherence to specific schools (whether classical or hedonistic, partial or general equilibrium) and which only wished to draw on what he considered correct or useful economics. Third, and despite his initial emphasis on a pure and narrow economics, Pantaleoni's work exhibits a rich awareness of the need to draw on associated disciplines in a critical and informed way. Narrowness in economics needs to be avoided, as does dogmatism and intolerance. In his own day, Pantaleoni was the 'master' of contemporary Italian economists. In the qualities just enumerated he deserves to become the 'master' of the whole world of economics.

## Notes

1 In the process of revising this paper I am indebted for some helpful comments to Piero Bini, Nicolò Bellanca, Italo Magnani and Ferdinando Meacci. None of them bear any responsibility for the final version.

2 Pantaleoni's turbulent personality was probably not unrelated to the diverse antecedents of his parents (Coletti 1925). His father was a physician and political writer, a friend of d'Azeglio and Cavour (Pantaleoni 1894, is the entry on Cavour he wrote for *Palgrave*), and a particularly vigorous enemy of the temporal power of the popes, which guided his participation in the negotiations between Cavour and the Holy See in settling the Roman question. His mother was a 'distinguished English lady, educated at Potsdam by a German teacher, and afterwards student in Rome' (Loria 1924: 653). His parents therefore likewise brought him a cosmopolitan inheritance. His early education was in fact in Berlin. After graduating in law in 1881, Pantaleoni was appointed in the following year, aged twenty-five, as Professor of Political Economy at the University of Camerino, subsequently to that of Macerata, followed by positions first at the School of Commerce at Venice and subsequently as Director of the Royal School of Commerce at Bari. He resigned this position in 1892 because he resented censure from the School Board for his criticism of the government on the subject of free trade (De Viti de Marco 1925: 171). He entered business and did not return to academic life until 1895 through his appointment to a chair at Naples. This he was forced to resign after two years' tenure because of his strong stand against Italy's imperialist policy in Africa (Pantaleoni to Seligman, 1 August 1900, in Dorfman 1941: 595; see also Hicks 1983: 340). Pantaleoni spent the following three years teaching at Geneva (1897–1900). In 1900 he took a chair at Pavia vacated by the death of Mazzola, a position attractive because of its proximity to Milan. In July 1901 he succeeded Messedaglia as Professor of Political Economy at Rome, the chair he occupied until his death. It is interesting to note that Pantaleoni (1925a) left entries on his two predecessors (at Pavia and Rome, respectively) in the second edition of the *Palgrave Dictionary of Political Economy*. These described Mazzola as 'the ablest of the younger Italian economists of his time … a convinced free trader and a useful contributor to public finance' (1925a: 922–3); Messedaglia was included with Cossa and Ferrara as 'the direct teachers of all Italian economists since the renewal of economic studies in Italy from the middle of the nineteenth century', and was praised for his 'quiet and modest' ability on the subject, particularly with respect to statistical and methodological inquiry (Pantaleoni 1925b). For more details on Pantaleoni's life see Bini (1995).

3 A list of these is given in the Appendix to the final volume of *The New Palgrave* (Eatwell *et al.* 1987: IV, 977).

4 In the second edition of the *Palgrave Dictionary* Pantaleoni (1925d) described Ferrara as 'an original thinker and creator of new knowledge', as undoubtedly the best Italian economist of the nineteenth century and as the major cause of the renewed interest in Italian economic studies through the publication of his *Biblioteca dell' Economista*. Like Pantaleoni, Ferrara also entered politics on the liberal side, opposed the socialists of the chair in Germany and supported free trade, combined with the

principle of general non-government intervention in economic life, founding for this purpose the Adam Smith Society in Florence.

5 It would have been interesting to have Pantaleoni's responses to the strong criticism of Marshall which Pareto sent him over the years in their lengthy correspondence. See, for example, Pareto to Pantaleoni, 17 June 1895 (in Pareto 1962: I, 417–18) and much later 15 September 1907 (*ibid.*: III, 60–1). Barone and Pantaleoni also exchanged letters over Marshall during the 1890s (see Magnani and Bellanca 1991).

6 Marshall to J. B. Clark, 24 March 1908 (in Pigou 1925: 416). Pantaleoni's list of authorities included in *Pure Economics* (Pantaleoni 1889 [1898: 309–10]) demonstrates this clearly.

7 Taussig (1896: 302n) suggests that in the case of Gossen, of whom Pantaleoni was a great admirer, the 'cordial recognition is overdone' and comes at the expense of more recent and, Taussig implies, more profound thinkers in economics. However, Taussig ignores Pantaleoni's critique of the wages fund doctrine and his defence of its merits as a simple statical theory, which draws on Gossen's analysis of wages. See Pantaleoni (1889 [1898: 301–6]) and, for the use of Gossen in Pantaleoni's wage theory, *ibid.*: 300.

8 Pantaleoni depicts money as an instrumental commodity which has utility for its owner derived from the utility of the commodity that money can buy (*ibid.*: 77–8, n1). He therefore avoids Walras' approach to defining the utility of money in terms of the services which cash balances render its owners (Walras 1874–7 [1954: 320–4]; and see Patinkin 1956: app. C, 541–72).

9 Pantaleoni treats much of the exchange value problem as a problem of price, with quantities of the commodity being exchanged for quantities of a monetary unit, such as a shilling (*ibid.*: 125–7; 129–32). Although he recognised the inherent problem in such analysis from the variations in marginal utility of money for persons of different means, the problem is not solved and its difficulties are not systematically tackled (*ibid.*: 130, n1). Pantaleoni also fails to dwell on the implicit peculiarities of treating isolated exchanges on the presumption that the social phenomenon of a monetary economy exists.

10 A passage quoted at the start of Sraffa (1925: 277) divides commodities into three classes of constant, decreasing and increasing costs. However, Pantaleoni's stress on the importance of marginal cost and marginal utility in determining final outcomes does not carry any warning about the difficulties for equilibrium from decreasing costs.

11 Pantaleoni's position on this is exemplified by the well known quote *la scuola di coloro che sanno l'Economia e la scuola di coloro che non la sanno* (cited in Ricci 1925: 195) which, loosely translated, implies that there are two schools in economics, those who know the subject and those who do not.

12 As in the great debate over the role of prices in resource allocation in a socialist economy, where trial and error solutions were advocated by those sympathetic to socialism, to enable an efficient allocation without prices set by the market in the manner of competitive capitalism. This issue is tackled by Peter Dooley (1998).

13 Pantaleoni's example (1898: 186) of 'struggle between industry on a small scale and industry on a large scale' is interesting since its argued outcomes in such struggles are not easy to predict and may favour small firms, depending on local and technical conditions.

14 The exception of 'sexual relations' is particularly striking, *pace* attempts by economists such as Becker to bring them into the ambit of the 'hedonistic calculus' and the increasing evidence that violence is a frequent feature of such relations, with mother and children the victims owing to this exclusive 'charge' of child rearing. This emphasises the dangers from historical relativity for making 'universal' statements, a point Pantaleoni admits in another context in this article (Pantaleoni 1898: 203–5).

15 Pantaleoni offers no remedies, nor really any causal analysis of the phenomenon, apart from excess demand generating a boom, which is eventually curtailed through monetary factors.

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# 23 A neglected daughter of Adam Smith

## Clara Elizabeth Collet (1860–1948)[1]

In a pioneering study of women political economists, Thomson (1973) used the term 'daughters of Adam Smith' to describe the six subjects of her book: Jane Marcet, Harriet Martineau, Millicent Fawcett, Rosa Luxemburg, Beatrice Webb (Potter) and Joan Robinson. In introducing her study, Thomson (1973: 3) noted that some of these writers, especially the first two, 'are derided … ignored, or their existence barely acknowledged by the profession'. Nevertheless, these first three were pioneers in the writing of elementary text-books, no more dogmatic in their stance than the products from their economist-brothers used in principles courses in late twentieth-century tertiary institutions. The fifth was a noted social researcher contributing to specific economic issues at various stages of her long career, while the other two were prominent economic theorists, one in the male-dominated circles of Marxist social democracy in Germany, the other in equally male-dominated Cambridge from the 1930s. All six of course have this in common, they share the characteristic of having contributed to the science which Adam Smith made famous at the end of the eighteenth century, and having done so in a manner recognised by both their contemporaries and later generations. In addition, they were all recognised in *The New Palgrave Dictionary of Economics* (Eatwell *et al.* 1987) in separate articles on their own, an honour they share with only twenty-three other women. One of these other women, Clara Collet, is the subject of this chapter.

In some ways, the omission of Clara Collet from Thomson's (1973) study is not surprising, given the relative fame achieved by the six persons she actually included in her study of female economists. Her omission from other studies devoted to the history of economics on the women's question (for example, Madden 1972; Pujol 1992) is more difficult to explain. At the turn of the century, Clara Collet was a well known and respected author on women's labour issues, which she herself preferred to describe in the manner of Beatrice Webb, as studies of 'social conditions' (Bowley 1950: 408). She had published a collection of articles on educated working women (Collet 1902), had assisted in the production of a major report on women's work and wages as a specially appointed Lady Assistant Commissioner on the Royal Commission on Labour (1891–94) and later wrote several reports on women's labour issues for the

Board of Trade's newly created Labour Department (Collet 1898a). Like Beatrice Webb, Clara Collet had assisted Charles Booth's study of *Life and Work in London* (Collet 1889). In addition, she published important statistical studies of women's issues in prestigious journals like the *Journal of the Royal Statistical Society* (Collet 1898b) and the *Economic Journal* (Collet 1891a; 1891b; 1898c; 1901; 1915), for the second journal gaining the distinction of being the only person to contribute both to its first and fiftieth, jubilee, volume (Bowley 1950: 408). She also wrote two entries for the original *Palgrave Dictionary of Political Economy* (Collet 1896a; 1896b) dealing with female labour and the earnings of women and children. She therefore seems to have become a neglected daughter of Adam Smith from ignorance and oversight.

In the period of her life as an active economist she was not ignored, nor was she forgotten at the time of death by the learned societies to which she had contributed so greatly when in her thirties. It may be noted that she was a founding member of the British Economic Association, which some years later became the Royal Economic Society; and an active member of the Royal Statistical Society. In 1890 she had initiated a move to organise the Junior Economic Club in London, as an offshoot of the more celebrated London economic circle which met at Hampstead as a bridge between economic theory (Wicksteed, Edgeworth and Marshall), bimetallism (Foxwell and Beeton) and the Fabians (Bernard Shaw and Sidney Webb) and others involved in the formative years of the London School of Economics (Graham Wallas). She was a close friend of Henry Higgs and Foxwell, knew Wicksteed well, and as a child attended Shakespeare readings at the Marx residence, 1 Maitland Park Road. She later (1914) befriended the Indian planner, Mahalanobis. She attended popular lectures on economics by Toynbee, Ruskin and Symes, followed British Economic Association meetings and was one of the first women to achieve high positions in the government service. She ought, therefore, to be a celebrated rather than a neglected daughter of Adam Smith.

The following intends to set the record straight on this important woman economist of the Victorian era, who studied women's issues with the tools and techniques of modern economic analysis. The chapter thereby supplements the brief entry by Black (1987) for *The New Palgrave*, and reference to her work in chapters of Groenewegen (1994) dealing with Jevons, Marshall and the Webbs. After a biographical sketch, successive sections of the chapter provide an evaluation of her research on educated working women, general women labour market conditions, statistics on wages and statistical method, to conclude more generally on her importance as a female Victorian economist anxious to resolve the problems facing women's labour at that time. Her work, in short, should be seen as a noted political economy contribution to issues of Victorian feminism.

## A rich and interesting life

Clara Collet was born in 1860 into an ancient and gifted family, whose ancestry could be traced back to Rouen traders of that name who came to England not long after the Norman conquest. Her male ancestry continued to be drawn predominantly from the merchant class, including a great-great-great uncle, Joseph Collet, an official of the East India Company but also a Governor of Madras in 1717, whose papers she later edited (Collet 1933). Her older brother, Sir Wilfred Collet, continued this public administration tradition by first becoming Governor of British Guiana, then Governor of British Honduras.

Her father, Collet Dobson Collet, was a noted radical reformer, rationalist and student of the law, and during his life wrote a great many books. One of his close friends, the secularist and social reformer George Jacob Holyoake, wrote in the introduction to Collet's *History of Taxes on Knowledge* (Collet 1933) that its author was 'an unusual man … incessant in promoting public causes … with absolute disinterestedness'. Collet was also an acquaintance of Marx and Engels. Clara Collet's diary mentions visits with her father to the Marxes for readings of *The Merchant of Venice* and *Richard III* in November 1877 and February 1878, and in June remarks that 'the Marxes and the Oswalds are the only people I care for now' (Collet 1876–1914: 12, 13, 15). Apart from information contained in her diary, very little is known of her childhood and early education. The last involved voracious reading (Darwin, Mill, Goethe) as well as early contacts with social reformers and radicals (Toynbee, Symes, Wicksteed) drawn from secular as well as clerical and unitarian circles.

An article written late in life (Collet 1945) records that she was introduced to political economy because it was a compulsory course for the degree of M.A. at University College London. Her political economy essays, as her diary records, were corrected by Ashley and Symes; the lectures were given by Foxwell, who became a lifelong friend (Collet 1936). As part of the required political economy studies, she read Adam Smith, John Stuart Mill's *Principles of Political Economy* and Ruskin's *Unto this Last*. Although in 1876 she had complained that reading Mill was dull (Collet 1876–1914: 17), her reading of Ruskin made her very 'indignant at Ruskin's gross misinterpretations of Smith and Mill'. This critical flair she never lost. However, Ruskin's social conscience was more to her liking, and in her diary she expressed the wish for a society which would examine the logical consequences of taking Ruskin's basic axioms and postulates as the starting point for political economy. Ministers of religion reinforced this interest in social questions, and attracted her particularly to the increasingly important problem during the mid-1880s of the unemployed (C[atherine] T[horburn] 1948: 652). It was presumably this type of interest that brought her into contact with Charles Booth, for whose initial survey she contributed a number of chapters on women's labour; experience which undoubtedly qualified her for the position of Assistant Commissioner for the Royal Commission on Labour to investigate aspects of women's work. From then on, she became one 'of those who wove the women's movement concern with work into progressive philosophy' (Collette 1989: 13), an interconnection which, her experience with Booth and the Labour Commission and her studies of political economy taught her, required the tools of economic and statistical analysis.

Although she completed her M.A. with honours, and later became the first woman Fellow at University College, London, her thirst for economic knowledge was such that she wished to continue her study of political economy by the device of a regular study group. Her friendship with Henry Higgs and Foxwell, combined with her zeal for serious discussion of social questions, enabled her to form such a group of progressive economists from among University College students as the London Junior Economic Club. Although Higgs advised her that the junior club should await the formation of the senior 'club' or Economic Association, 'with the usual impulsiveness of women she convened a meeting of students for next Friday [27 June 1890], which drew a number of interested people'. 'There were present Miss Heather Bigg, Miss Collet, Miss Foley, Aves, C. S. Lock, Llewellyn-Smith, Robinson, Hensman (a pupil of Edgeworth) and Henry Higgs' (Collet 1940: 737–8). Foxwell not long thereafter gave an inaugural address to the new club. This was followed by a contribution from Marshall which criticised aspects of his own *Principles of Economics* partly in the light of Edgeworth's earlier criticism (Collet 1940, citing the Foxwell-Higgs correspondence and her own diary). The club thrived until well into the new century, drawing speakers from Cambridge, Oxford and the growing economic membership of the public service. One benefit it provided for Collet's later work was its interest in workers' budgets, based on the methods of Le Play, in whose work Higgs was interested to the extent of applying it to the contemporary British situation, an example Collet followed by investigating the expenditure patterns of British working women (Higgs 1890).

When the British Economic Association was founded in November 1890, Clara Collet was one of the half-dozen women recorded as present at the inaugural meeting. She subsequently served on the Council of the Royal Economic Society from 1920 to 1941, regularly attending its meetings and contributing to its work. In 1894 she was elected Fellow of the Royal Statistical Society in recognition of her statistical work on women's labour, and she served on its council from 1919 to 1935. Activities in the professional associations coincided with advancement in the public service, where she became the first woman trained economist on the staff of the Board of Trade. She became its labour correspondent from 1893 to 1903 as a consequence of recommendations from the Labour Commission she had served, a senior investigator from 1903 to 1917, and was transferred to the newly created Ministry of Labour in the same capacity (1917–20). Her public career ended as a member of the Trade Boards (1921–32). In line with her later views on broadening opportunities for the employment of women, she abandoned at an early age her position as an assistant schoolmistress in Leicester, with which she started (1878–85) her career, initially for that of private social investigation, followed by extensive public service.

Clara Collet's spasmodic diary over the following decade contains snippets of her professional activities at this time, and the economists she was meeting. A detailed account of her attendance at the 1904 Cambridge meeting of the British Economic Association is of particular interest. During a reception at

Trinity Hall (Fawcett's old college) she met and talked with William Smart, a fellow worker for women's rights in the labour market (Jones 1916: xxiv–xxv), Gonner, Dr Pierson (the Dutch economist and former Prime Minister of Holland), Macgregor, and Mary Paley Marshall. The next day she recorded the debate over free trade and protection. This was introduced by speeches from Guyot, Lotz and Dietzel on protection in France and Germany, followed by Price's attack on the English professors' manifesto in favour of free trade, for which he received a dressing-down from a hyper-serious Alfred Marshall in a speech Collet described as showing his 'usual want of balance'. A subsequent gathering at Girton College found her in the company of Emily Davies, Professor Lotz, and once again Mary Paley Marshall by herself (Collet 1876–1914: 68–9). Some years later, the diary records meetings at the Board of Trade in the company of its new Minister, Winston Churchill, and William Beveridge (Collet 1876–1914: 129–30).

Of particular interest for the context of this paper is an entry for 2 June 1910. This indicates her intention to resign from the Labour Department in order to be able 'to speak more freely about the way in which the women's side of the Labour Exchanges is being organised, capable women being subordinated to men who know nothing and care nothing about women's interests' (Collet 1876–1914: 137). In the end she was persuaded not to resign, but the entry indicates her passionate interest in securing women's rights in the labour market at all levels, the topic she had made her applied domain for research and policy advice.

Her later close friend, the Indian physicist, statistician and economic planner C. Mahalanobis, left a striking account of her qualities, stressing that independence of mind and life which Clara Collet herself always highlighted as an essential feature of a truly liberated woman:

> She had gathered round her a circle of friends with broad intellectual interests, who used to meet in the evening in a small flat in Holborn, where she was then living. I and other Indian students would sometimes join this group. Miss Collet would pour out coffee and would constantly make penetrating observations and witty remarks with a twinkle in her eyes. She was keenly interested in statistics. Through her I came to realize, for the first time, the importance of statistics, with which I had no direct concern at that time, as I was studying mathematics and physics. She had an extremely critical mind. Speaking of a recently published book on human heredity, she remarked, with a dry smile, that the author had taken great pains to collect a large mass of evidence in favour of his own theory. She had a keen sense of humour, and made many witty remarks on the controversy about the relative importance of nature and nurture in which Karl Pearson was engaged at that time. I did not meet Karl Pearson in my student days, but learned a good deal of his work indirectly through Miss Collet. … She had a brilliant mind, and a charming personality; and always looked on the brighter side of things. I consider myself fortunate in having come into

> close contact with her when I was young, and I recognize her formative influence on my life in many ways. It is my great regret that, although I was in England several times during the last two years, I was unable to meet her once more before her death.
>
> (Mahalanobis 1948: 254)

Her eventual retirement from public service did not mean inactivity. She edited family papers, and, on the basis of her rich collection of family letters, was going to edit for publication a collection of letters by women indicating the social questions of the day combined with perspectives on the mental and moral qualities of the writers. At one time (see below) she entertained the idea for a statistical study of social issues from data to be extracted from novels. She was therefore not a narrow economist. Her reading covered literature, poetry, biblical studies and ancient Jewish history, as well as Blue Books and economics texts. Her obituary writer in the *Journal of the Royal Statistical Society* paints a picture of the qualities, personality, independence and eccentricity of this fascinating woman economist who lived to the full her rich and interesting life until her death aged eighty-eight:

> One would say that her outstanding qualities were vigour and alertness of mind and body, sincerity and directness, practical common-sense, independence of judgement, and the courage of her opinions. These latter traits were probably not entirely ingratiating to her immediate official superiors, but her colleagues and subordinates found her 'very pleasant to work with' and she was noted among her friends for her readiness to listen and to give weight to the opinions of others. She was indeed kindly; but she refused to be fettered by convention, custom, or anything that stood in the way of what she thought should be done – a characteristic gesture was her arrival at the Ministry, during the General Strike, in a hearse, which had offered the simplest way of getting there. She was, in fact, thoroughly practical and applied economic principles in her daily life – by which parsimony is by no means to be understood. On the contrary; Miss Collet was exceedingly generous, and moreover, at a meeting of the Society's Council firmly denied that you should cut your coat according to your cloth. But she had no time to spend on trimmings which would have got in the way of things that really mattered. The garden of the little house she had for a time at Highgate was a riot of anything that liked to grow there – mostly St. John's wort, as it happened – and the result seemed to her just as it should be. Her practical sense also insisted on the removal, in 1936, of herself, her bachelor brother and two sisters (at ages averaging not far short of 80) from a tall house in London to a bungalow on top of the cliff at Sidmouth; and a judicious economy of time and trouble was shown in all her domestic arrangements. These, like everyone's, became more difficult as time went on. In 1947, Miss Collet, the last survivor of the family, was left alone and with very little domestic help; but nothing discouraged her; in January

> 1948, she wrote 'this year of complete solitude has done me no harm; and it has … made me aware of how easily I can look after my merely personal wants.' Nor did her interest diminish in all that was happening. Her library list covered many subjects, from theology to novels; she read *The Times* thoroughly every day and solved the crossword, with particular relish for its more subtle ingenuities. Except for a liability to acute neuralgia, which kept her almost entirely indoors the last two years or so, she remained active in body, moving about the house with light quick steps, until a few months before her death. Even a couple of months before the end, her mind was busy with arrangements for her publications and she remained full of interest in the doings of her young relations, of whom she was very fond and proud. Few of her own contemporaries survive, but she remains alive in the minds of all who knew her.
>
> (C[atherine] T[horburn] 1948: 253)

## The economics of educated working women

As an educated working woman herself, Clara Collet was very conscious of the problems such women faced in the 1890s, particularly those of persons who, like her, were unable or unwilling to marry and therefore had to provide for themselves. The six essays she wrote and published during the final decade of the nineteenth century cover most of the major economic issues faced by such women, and moreover provide an interesting example of the manner in which Clara Collet used economic and statistical techniques to shed light on social issues related to women of her own class. The places where these papers were originally published indicate the varied avenues open to late-Victorian women to air their views on women's issues.

The first of these papers was read in 1890 to the Ethical Society, that secular haven for social reformers and moralists during the 1890s (Budd 1977). It evaluates the overall economic situation of working women at the start of the new decade, as compared to the situation reflected in the 'advice offered by Mrs Elizabeth Browning' more than thirty years previously at the mid-point of the century. At that stage, women were actively discouraged from using their minds, particularly on 'male' subjects such as mathematics and logical reasoning, because 'reasoning power was considered undesirable in women and like to hinder their chances of marriage' (Collet 1902: 2–3). By the 1870s these attitudes began slowly to change through women's successful struggle to gain admission to the universities, so that by 1890 London and Cambridge enabled women to sit their examinations on equal terms with men, though at Cambridge without granting them the degree which gave them full membership of the university (McWilliams-Tullberg 1975). Many of the newer university colleges, such as that at Bristol, started on a policy of admitting women to their classes on equal terms with men (Collet 1902: 5–6). This led her to conclude:

> So far so good. But there are not yet 800 women graduates of London and Cambridge. Of these the majority are assistant mistresses in public or private schools, visiting teachers, lecturers, or head mistresses. There were in 1881, according to the Census of that year, 123,000 women teachers, and over 4,000,000 girls between the ages of five years and twenty; and yet already this little handful of graduates is told that it is in excess of the demand and that it must lower salaries accordingly.
>
> (Collet 1902: 6–7)

This brief quotation shows Clara Collet's method of analysis at its simplest. Some easily grasped facts, drawn from unassailable data like the census, are followed by a simple inference to ridicule the conclusions others were trumpeting as correct without ever having examined the facts. A few further comments follow her conclusion. First, women graduates should not agree to working at rates of remuneration below an agreed minimum, so as not to undercut the already under-paid non-graduate teachers. Second, standards in women's education should be raised by raising the demand for graduate teachers through raising parental (that is, fathers') demand for quality education for their daughters. The last Collet diagnosed as a major hurdle, despite the fact that many women needed to be educated because they had to be capable of earning their own living. However, a broadening of the opportunities for work for women was almost equally important. Women could be usefully trained for such activities as business and farming, and in particular should be considered suitable for factory management jobs, ranging from foreign correspondence clerks (because of their undoubted aptitude for modern language studies) to chemists or artistic designers.

Extension of women's employment opportunities had a double consequence. In the first place it enabled young women to do more easily what they wished to work at, thereby extending to them a greater freedom of choice. More importantly, it enabled better determination of the economic worth of women by assessment of their efficiency. 'Teachers are paid out of fixed income, and their salaries are almost entirely determined by standard of living' (Collet 1902: 21). If this method of wage determination was abandoned and replaced by payment according to the value of their work, more young women would seek paid employment and desire superior education opportunities to improve their skills.

Two additional conclusions mark this introductory essay on educated working women. 'Women who give their service for nothing are rarely told the truth; it will be a good thing for them when they receive instead of flattery and thanks, criticism and payment' (Collet 1902: 23). Second, there should be no presumption that women have to marry young or have to marry at all in order to be 'happy and fulfilled'. Hannah More, Jane Austen, Maria Edgeworth, Joanna Baillie, Caroline Herschell, Harriet Martineau, 'all women of brilliant intellect, have left their mark on history as good and happy women … Likewise unmarried women of our own acquaintance who have found their vocation, can have bright and contented lives' (Collet 1902: 25). This freedom from obligation to marry has liberating consequences for both men[2] and women, Collet argued, but by the beginning of 1890 had not yet achieved the acceptance it deserved, so that the rights of educated working women were still only secured in a very imperfect way.

An essay originally published in *The Nineteenth Century* in 1892 analysed the limited prospects of marriage for middle-class women on the basis of demographic data. This indicated that the general belief that 'every woman can get married if she will only make herself agreeable, and not be too particular' (Collet 1902: 28) was a false one. Age difference at marriage between husbands and wives was a major explanation of this; locational inequalities in the number of the sexes of marriageable age was another. This paper likewise reveals Collet's statistical common-sense and her feel for asking the appropriate statistical questions. Analysing the available demographic data showed that 'the proportion of women who may be expected to remain unmarried [in all England and Wales] is, roughly speaking, one in six; in London, it is one in five' (Collet 1902: 34). Hence, 'a considerable number of women *must* remain unmarried' (Collet 1902: 38, my emphasis) and therefore, generally speaking, need to enter the labour market. An analysis of the 1881 census data showed 593,326 women in employment subdivided as follows by occupation. Indoor domestic servants accounted for 40 per cent, 12 per cent were in cleaning, laundry and associated work including that in public institutions such as hospitals and workhouses, while 16 per cent worked in the clothing and textile industry. Of the remaining 10 per cent, most were employed in what Collet described as 'purely women's trades' within general industry.[3] Two factors kept the rate of wages for these working women low and well below that of men. Many women workers accepted low wages because they expected help from their friends or relatives; second, parents were reluctant to educate their daughters because they considered the cost to be wasted when these daughters married. A strong conclusion followed. Not only is it not necessarily true, Collet argued, that

> Man's love is of man's life a thing apart,
> 'Tis women's whole existence.
> (Byron: *Don Juan*, I, cxciv)

but 'that marriage has naturally very much less attraction for women than for men' (Collet 1902: 65).

An essay in the *Economic Journal* in 1898 (Collet 1898c) analysed expenditure patterns of middle-class working women to implicitly illustrate the proposition that cost of living kept women's salaries low. Actual expenditure tended to suggest, relative to income from work received, that such workers had to rely on some form of assistance and support from parents, relatives or friends, particularly during the extensive periods of school holidays if they were teachers. The underlying premise of the article is the Marshallian proposition that workers cannot become highly efficient in their work if their salaries are inadequate (Collet 1902: 70; Marshall 1890: 245–53). The data presented in the paper was a purely 'inductive' exercise on the Le Play method. It consisted of eight budgets relative to salary drawn from four actual teachers, two clerks, one headmistress and one from a young woman living at home meeting personal expenditure from a parental allowance. None of these budgets, Collet admitted, 'could be regarded as typical', they were simply samples of the kind of material that needed to be collected to enable the establishment of typical occupational expenditure patterns, in order to derive conclusions on the necessary efficiency wages for certain classes of female labour (Collet 1902: 89).

The age limit placed conventionally on women seeking work was investigated in a paper published in the *Contemporary Review* for 1899. Examination of job advertisements suggested to Collet that 'women are [considered to be] unfit to undertake serious responsibility after the age of thirty-five' (Collet 1902: 91), a *de facto* limitation on women's right to employment, the validity of which needed challenge. Drawing on eighteenth-century literature, Collet inferred that 'the age of childish responsibility' had been raised from six to about twelve years over the past hundred years (Collet 1902: 111) while the age at which 'invalid mothers' could retire to the sofa by expecting their daughters to take over household duties had greatly risen from the standard set by the eighteenth century at eighteen years. Hence 'failure of power after thirty-five years of age has become absurd' by the start of the twentieth century even though such anecdotal (literary) evidence she used to reach this conclusion could not be adapted to determine the age at which 'the value of a woman's increased experience is counter-balanced by diminished physical power' (Collet 1902: 113).

A book review of Mrs Stetson's book, *Women and Economics* (originally published in the *Charity Organisation Review*) shows that Collet could apply her critical faculties to authors of both sexes. In particular, the review casts doubt on the benefits of externalising housework such as cooking, cleaning and even nurturing, and it questioned some of the broad generalisations the author had made about the historical duration of women's servitude to men. Collet's concluding sentence tells much of her personality: 'What the author says, even when not absolutely absurd, may be of little importance; but her feeling is so genuine and strong as to merit respect and attention' (Collet 1902: 133). The final essay reintroduced the use of literary sources as tools of social investigation in order to test the degree of economic progress women had achieved over the second half of the nineteenth century. It especially cast doubts on over-optimistic forecasts about what economic liberation can achieve for women, and warned of the dangers for young women of too hastily associating a glamorous existence with economic independence. The conclusion to the article and the book reflects the general tone of caution in Collet's work. Great strides, she observed, had been made in the right direction, but there was still an enormous amount to do, particularly to make the less gifted women competent to reach fruitful employment (Collet 1902: 142–3). Sad to say, this conclusion remains as apt in the 1990s as it was the century before.

In her review of Collet's book in which these essays were collected, Mary Paley Marshall (1902) made a number of very pertinent points about both its author and its contents. First, Collet's qualifications for writing these essays in her view arose not only from her valuable experience as co-worker on Charles Booth's survey of the London poor and, subsequently, Assistant Labour Commissioner, it owed much to her talent to combine 'trained economic thought' with the data gathered from her wide experience of life. Clear economic thinking enabled her to write so well on these issues. Second, unlike some feminists, Collet openly rejoiced in the differences between men and women (Mary Paley Marshall 1902: 252), thereby avoiding the search for spurious equalities. Two of Collet's conclusions are also emphasised to indicate the relationship between Collet's use of the economic tool box and Mary Marshall's husband's aims and objectives in economics. The capacity for economic independence is an essential part of individual self-respect and hence of character. Second, rising standards of life in nutrition, exercise, recreation and physical environment have greatly extended women's 'period of efficient life'. Although work for married women with young children may have problematical consequences,[4] overall the widening of employment opportunities for women raised the level of society's welfare and constituted genuine progress (Mary Paley Marshall 1902: 256–7).

The war produced Clara Collet's final journal contribution on middle-class women's work opportunities in the professions. The new labour market situation created by the general mobilisation of men for the front provided unique demands for women's labour which Collet (1915) argued were likely to make for splendid opportunities for placing the principles of determining women's remuneration on a sound foundation. The first of these principles reiterated the view put in her volume of essays, that the notion of efficiency wages implied adequate salaries for women's professional work and not rates of pay which contained an implicit cost of living subsidy from friends or family. Second, given the positive association between productivity and levels of pay, highly paid women's labour in professional activities often was more economically employed than cheaper, and by implication, less skilled labour. This also applied in hiring practices for less skilled clerical positions, where employing untrained juvenile female labour at low rates invariably proved to be less economical in the long run.

The job opportunities opened up by the war were classified into three categories by Collet:

> (1) Neutral work, in which it is a matter of indifference whether it is done by men or by women if they can do it equally well. Most of the work of the Post Office is of this character.
>
> (2) Women's work, supplementary to what is mainly men's work. A good deal of controversy would arise in determining what work should come under this heading, but very little as to what does come under it, e.g.

nursing under the War Office, prison inspection under the Home Office, inspection of work-houses under the Local Government Board.

(3) Women's work, frequently controlled by men from financial reasons, but almost invariably superintended by women.

(Collet 1915: 629)

Collet described married women as generally much more skilled in tasks coming under category (3) of women's work because of the additional proficiency gained in this area from their experience in the home. Moreover, part-time employment opportunities should be provided for this class of women workers. In occupations such as maternity services and more general health visiting, part-time employment of married rather than unmarried women raised efficiency. This came from the former's greater experience and at relatively little cost in terms of disruptions to the home from the more limited absence at work part-time entailed. Collet was, therefore, fully aware that the war was producing changes in the labour market beneficial for accelerating the changes in women's job opportunities which peace would only have been able to achieve more gradually.

## A woman's statistical and economic perspective on women's place in the labour market

Neglecting her contribution to the Charles Booth project of *Life and Work in London*, Collet's first published piece on women's employment in factories was included in the first volume of the *Economic Journal*. It investigated women's work and wages in Leeds, largely in its textile industry, as a general contribution to the analysis of women's labour. Sources for Collet's data were census returns, reports from government factory inspectors, surveys of women employees,[5] and other fieldwork which gained her broad impressions of the atmosphere in the workplace with female labour, as well as information on wages and general hiring practices from specific factory owners.

The article opened by relating the growth of women's employment in the cloth industry to the introduction of the power loom. This enabled cloth manufacturers to substitute women for men as part of the deskilling process which replaced handwork by machines. However, cloth making in Leeds itself as a major form of women's employment was replaced by the ready-made clothing industry, again through the introduction of machinery (for cutting, button-holing and sewing), thereby making the introduction of a factory system in place of domestic workshops inevitable. Here, and attributed by Collet to the good work environment produced in the households of highly skilled male labourers in Leeds, girls and women factory hands tended to be more skilled, particularly when compared to the clothing industry of East London investigated by Beatrice Webb (Potter) (1888a; 1888b). Women could therefore obtain higher wages, and were generally employed on equal terms as the men.

The eventual outcome predicted by Collet was that men will inevitably be substituted for women, because her earlier findings of such sexual substitution in the cloth industry suggested that 'women were employed because wages were low, and not *vice versa*' (Collet 1891b: 462).

The type of investigation she had conducted in Leeds undoubtedly assisted Collet's appointment, and subsequently, the quality of her work as Assistant Lady Commissioner to the Labour Commission. Its report discussed average rates of remuneration for women by particular industries, the issue of competition between men and women for scarce jobs in times of unemployment, women's wages insofar as they were ascertainable in the domestic and sweated industries, grievances connected with net wage determination with special reference to the practice of fines for misbehaviour in the workplace, hours of labour, problems with excessive overtime, the consequences of employing married women especially on health and quality of their offspring, working conditions with respect to sanitation and hygiene in the workplace and associated facilities, and the remedy for such problems by means of legislative regulation enforced by government inspection. The last topic included consideration of restricting the employment of married women in certain industries, anomalies in factory legislation for women, adequacy of the present system of factory inspection including desirability of appointing women factory inspectors and investigations of hiring practices, and morality in the factories and the contribution thereto of the behaviour of foremen and general overseers of women's labour. Last, but not least, the report from the Lady Commissioners considered the need for women's labour organisations, largely drawn from examination of the consequences of those already existing on wages and working conditions. The mass of information contained in this report awaits the labour historian of late Victorian England interested in studying women's work for the market at the end of the nineteenth century (Dilke 1891; Bulley 1894).

The dilemma from the terms of reference the male commissioners imposed on these pioneering Lady Assistant Commissioners, created difficulties for the conduct of their investigations. This is well illustrated in the following:

> The terms of reference also posed a problem for the investigators in that they implied bias against women's work. Inevitably during their investigations, horrifically bad conditions of work were exposed in many trades and the difficulties of combining dangerous work and domestic chores and the adverse effects of heavy work on pregnancy, childbirth and child care were revealed; the women Commissioners wanted improvements in all these areas. On the other hand, they were reluctant to 'prove' that women's work in any specific trade was a social danger and to jeopardise the independence of women wage-earners. The women interviewed seem themselves to have recognised the dilemma, denying obvious grievances and refusing to complain about the most harsh and demanding labour.
>
> Whether from resentment of their inferior status or in order not to deny women's right to work, the investigative women Commissioners decided

> not to include any specific recommendations, but to let the facts speak. They divided trades and regions between them and surveyed hours, health and safety, the availability of rest and refreshment, sleeping accommodation, sanitary agreements, trade union activity and wage rates. The volume of work and their commitment to it was tremendous. For instance, as she was responsible for investigating shops, Margaret Irwin had often to call after 10.00 p.m. at night to interview shop assistants in private and to find if they had been released from work (shop hours were meant to be no longer than 8.30 a.m. to 9.30 p.m.). Apart from making available a mass of evidence to the women's movement and the trade unions, one positive result of the Labour Commission was the founding of the first women's factory inspectorate.
>
> (Collette 1989: 14–15)

Inferences from the Lady Assistant Commissioners' work drawn by others have been discussed elsewhere (Groenewegen 1994: chs 3–5, of which ch. 4 is included as Chapter 14 in Volume I of this book), and Clara Collet undoubtedly gained enormously from her experience with the Commission in a variety of ways. Her immersion in the reality of women's work enabled her to effectively demolish long-standing prejudices in this controversial area when the consequences of the emergence of 'modern women' were placed under particularly careful scrutiny by generally male social scientists. This required skill, balance and diplomacy in order to satisfactorily trade-off the various interests involved. A striking example is her careful evaluation of the statistical evidence on the consequences of married women's work on infant mortality (Collet 1898b), as a result of which she successfully combated the biased views peddled on this emotive subject on the basis of what generally proved to be the most slender evidence. This was discussed above in the context of Jevons' crusade on the issue published in the *Contemporary Review*; other, more low-key factual demonstrations of false preconceptions were mentioned in the previous section on the excess supply of skilled women workers and the ability of every woman to marry who wished to do so. Defence against her potent criticism was often by way of character assassination. She was 'branded a failure because not supported by a man', and her eccentricities, such as wearing 'short (ankle-length) skirts … for comfort at work' drew unfavourable comment (Collette 1989: 13).

Her articles for the *Palgrave Dictionary* (1896) indicated a number of questions which the history of women's employment should explain, on only one of which, she argued, adequate data were available from reports prepared in conjunction with the Factory Acts. Apart from the issue of women competing with men for employment, the other burning issues on women's work included:

> (2) the effect of such competition on the wages of men in the same trade; (3) the effect of the economic independence of women on the rate of wages of men in the same class, and hence on the income of the family; (4) the

> effect of the employment of married women in factories on the well-being of the family.
>
> (Collet 1896a: 49)

More generally, Collet concluded that the effect of women's labour on men's wages and employment was difficult to ascertain and that, broadly speaking, women's remuneration was well below that obtained by men, particularly in employment requiring training and education. This had not always been the case, she claimed, and was therefore not inevitable. Research on the fifteenth-century labour market by Thorold Rogers showed that then unskilled female labour at least 'was equally well paid with that of men' (Collet 1896a: 50). She likewise argued that there was 'insufficient evidence to form any judgement as to the effects of married women's labour on the wage of the husband' (Collet 1896: 50). She reiterated the lack of satisfactory contemporary data on wages, partly from the nature of female employment and its concentration in domestic service, an area of employment where such comparable data were almost impossible to obtain.

A report prepared for the Labour Department of the Board of Trade (Collet 1898a) investigated the four fundamental issues mentioned in *Palgrave* for major industrial centres. It started by noting that data on women's employment were invariably collected as 'incidental to some earlier inquiry into men's labour', except in the well known cases generated by influential protest against the employment of children in factories (Collet 1898a: 4). This inquiry, to the contrary, was particularly designed to obtain information on the effects on home life from the industrial occupation of women, so that it contained a special emphasis on the 'industrial employment of married women'. This was also a controversial question, as the deliberations of the Labour Commission at the start of the decade had shown.[6]

The industrial centres covered in the study were the cotton and linen manufactures of Dundee, Ulster (especially Belfast) and Leeds and the West Riding. Data were drawn from the hand-loom inquiries of the 1830s and compared with the more contemporary data coming from censuses and factory returns for the 1880s and 1890s. The data permitted no simple conclusions in any of the four basic questions Collet had identified as fundamental in the context of understanding women's labour in her *Palgrave* contribution.

Conclusions were most complex with respect to wages. Under the old domestic system based on hand-loom technology, 'when both men and women worked the loom', there seems to have been no question of difference of payment for the same work. The women did a lighter work than 'able-bodied men', and were paid the same rate as the

> old men and boys who did the same kind of work. … Although, however, paid the same rates for the same work, women and girls were rarely owners of their looms, and their fathers and husbands usually drew their wages under the domestic system.
>
> (Collet 1898a: 65)

The advance of the power loom altered the situation drastically. Women's wages in the textile trades of Dundee and Belfast rose relatively much faster than men's wages, while within women's wages there was a shift from the high compression of rates for all women over thirteen years old to a much more extended range with respect to age, and, Collet presumed, skill levels (Collet 1898a: 17, 65). Other wage changes pointed to differences in experience between Dundee and Belfast. Although wages in both centres were at a maximum in 1873, fluctuations were more frequent in Dundee than in Belfast after that date. Given productivity growth, earnings had continued to grow after 1873, since most of the rates were piece rates. In general, wage growth was substantial over the whole of the period, most wages of women and children doubling over the sixty years in money terms (Collet 1898a: 65–6).

The study also confirmed Collet's earlier conclusion that the substitution of machinery under a factory system for manual skills practised at home in the weaving industry had greatly favoured female employment in weaving. However, the explanation for this shift arose from male dislike of the power loom, a task men tended to equate with 'women's work'. 'In the weaving factories from the very first the work has been done by women, and there has been no displacement of men within the factory. Some heavy power loom weaving is [only] done by men' (Collet 1898a: 64).

Effects of women's work on the family wage were also discussed by Collet. The rise in the proportion of married women in work between the census years of 1881 and 1891 from 19.4 to 24.0 per cent of employed women, was implicitly explained by economic necessity; 'nearly all the occupied married women in Lochee [a sub-registration district of Dundee], with husbands at home, were married to men earning low wages' (Collet 1898a: 37, 39). A preference from some employers may indicate an additional reason why this growth in employment of married women had occurred:

> The work is less skilled; women may be taken on after marriage with very little previous experience, and their habits and circumstances in such cases are generally conducive to irregularity. … One employer, however, states, in both [spinning and weaving] the married women are the best workers.
>
> (Collet 1898a: 31, n2)

In the context of employment of married women, Collet also raised the issue of infant mortality, which earlier that year she had examined at length in the *Journal of the Royal Statistical Society* (Collet 1898b). Her data provided no real evidence for any 'relation between the employment of married women and infant mortality'. The incidence of illegitimate children made this finding somewhat problematical because the 'percentage of illegitimate children who die of neglect is greater than that of legitimate children', though data were not at hand for investigating this subject more fully. In addition, the number of mothers with children under one year of age did not enable estimates of 'the number who had lost children while working at the mills', nor was

> there any means of establishing any connexion between infant mortality and the occupation of the mother, as the death certificate states the occupation of the *father* only. Until it is possible to obtain the insertion of the occupation of the mother, both before and after marriage, very little progress can be made towards estimating the effect of women's industrial life on infant health.
>
> (Collet 1898a: 39)

Finally, the study permitted some general comparative conclusions about the situation of working women in Belfast and Dundee, though no explanations were offered for these largely statistical findings. Despite lower average earnings,

> the social condition of women in the industrial class in Belfast appears to be more satisfactory than in Dundee. The percentage of adult women occupied is much lower, and is not increasing; the disproportion between the sexes is not so great, and is diminishing; there is greater variety of employment for women, and there are more openings for skilled workmen.
>
> (Collet 1898a: 66–7)

In line with contemporary thinking, Collet praised the social implications of fewer adult women in the workforce, presumably because greater balance of the sexes permitted a higher incidence of marriage, perhaps likewise explaining the lower rate of infant mortality and level of illegitimate births in Belfast.

In 1891, Clara Collet had praised the Massachusetts Board of Statistics for preparing historical studies on women's labour and its consequences. Three items were singled out in this review, excepting her rather sceptical remarks on the reliability of some of the data supplied. The social and even intellectual life of some working women reported for Boston clothing factories seemed very praiseworthy, though admittedly it drew on somewhat anecdotal evidence. The lavish breakfasts enjoyed by women factory workers, despite their inevitable consequences for the onset of dyspepsia, was another major difference between women workers' life-styles across the Atlantic. Last but not least, the rapid rise in working women as a proportion of the workforce between the census years of 1875 and 1885 was very impressive, female employment relative to female population growth rising more than threefold as compared to that for male employment (Collet 1891a: 399–400, 401). A study of Wages Boards in Victoria (Collet 1901) attempted to shed light on the effects of the minimum wage on wages and employment in industries not subject to this measure. Her reading of the evidence was that 'the natural flow of labour into channels in which wages are highest was checked and directed into those where they were lowest, by the regulations of the Special Boards'. Employment growth in wage-determined trades was slower than in unregulated activity; in addition, with respect to women employment in the textile trade, 'The rich [that is, the highly paid workers] may have been growing richer, but the proportion of the poor has been growing greater' (Collet 1901: 563–5). For Clara Collet, minimum wage legislation was clearly not an unmitigated success, and needed more careful study.

Clara Collet's statistical investigations of women's work, both official and privately published, examined the four crucial questions of concern in contemporary discussions over women in the workforce. She did so on a statistical basis, trying to find the facts of the matter before reaching conclusions. Such factual analysis was invariably conducted in a critical manner. She never drew conclusions for which the statistical basis was inadequate; on the other hand, she invariably drew the conclusions which the data warranted, even if they were unpalatable to her own beliefs. In this way, she combated contemporary beliefs about the consequences for infant mortality from married women in the workforce, and about the displacement of men's employment opportunities by women paid lower wages. At the same time, she found it difficult to generalise about wage growth for women and, for that matter, on the effects of women's wages on family income.

## A significant daughter of Adam Smith

Her work clearly makes Clara Collet a significant daughter of Adam Smith. Less outstanding than some of his female descendants in terms of the production of economic theory, or in gaining the wide-scale recognition or notoriety for her publication as Harriet Martineau had done, she nevertheless contributed important work. As a follower of Smith, she can be ranked on the level of Sir Frederick Morton Eden, that careful statistical investigator from the late eighteenth century on the plight of the poor and a source, though rarely celebrated in the histories of economic thought, who was highly valued by practitioners of economics over the subsequent decades and centuries. Collet's interest in household budgets of middle-class, single, working women, and in the overall social consequences of women's entry into the factory workforce, is on a par with Eden's painstaking, specialist, factual inquiry at a period when society itself was subject to major change.

The richness of her work has made her an unduly neglected daughter of Adam Smith. She was an economist in whose writing women figure prominently, in their own right and with their own set of economic problems deserving exploration. This makes her an exception in the contemporary literature, as suggested by Pujol (1992: 1), and also an astonishing pioneer. Her research tried to integrate the subject of women's work into the general corpus of labour economics, looking at the consequences of that work in its manifold aspects. These covered the economic in the form of effects on wages for women, and for men in the same or associated industries, together with consequences for employment opportunities. They covered the social by attempting to analyse the consequences of the growth of women in the workforce for their families, for their unborn offspring, and more widely, for morality in general. Collet from the beginning of her investigations had a firm research agenda, which she correctly argued had been unduly neglected by official concentration of research into men's labour problems. The result of this neglect was much misinformed prejudice, often not benign but maliciously used to serve ends against broadening the opportunities for women in work and life.

The method Collet employed in this research was also that of Smith in its widest sense. Her premises were grounded in economic theory, whose findings with respect to labour she ruthlessly applied to the particular problems she was analysing. Marshall's views on efficiency wages, for example, which he applied in favour of men and as a rationale for confining married women to the home as a matter of national imperative, were used by Collet to argue against the systematic underpayment of women, especially in the teaching service where wages were kept to a minimum, by trading on the fact that the family background of most teachers would ensure assistance to them during extensive holiday periods especially over the summer. She was also well aware of the use of supply and demand in labour market analysis; analysing demand factors in terms of the commodity produced, and of the beneficent influence that increased demand for quality and quantity of the output had on the extent and nature of the demand for the labour being considered. She was likewise fully cognisant of the influence of wages, training and education levels on the scope of employment opportunities and the productivity of the workers. The novelty of her contribution was that she applied these general principles to women's activities in the workforce, in part to facilitate giving women equal access to the consequences of their growing employment similar to men. As the previous sections have illustrated, the tool box of economics as it was shaped at this time was clearly of significance to her work.

Statistical analysis, and in some respects 'induction', was the major tool of her research. Much of her official work on women's employment in industry was of the essentially painstaking fact-gathering kind, trying to obtain comparable data from which to draw conclusions on the major questions raised about the impact and consequences of rising female participation in the workforce, including that especially of married women. Her study of the textile industry in Dundee and Belfast is a perfect example of this type of 'induction', drawing comparative inferences from the data without attempting any broad explanations unless there are specific explanatory variables which suggest themselves unambiguously from within the facts. The reader is therefore not told that Belfast's social conditions for women's work are superior to Dundee's despite the latter's higher wage levels; however, data are presented for a variety of hypotheses on this matter, perhaps commencing with those on the greater equality in numbers of the sexes, including those of marriageable age in Belfast as compared with Dundee. Only in the case of the replacement of men's labour in weaving by that of women as a result of the introduction of the power loom, is an inference made about the nature of this complex substitution, which relied partly on the technical considerations of this change in the production process and partly on the traditional employment preferences of the hand-loom weavers.

In what for contemporary readers is probably a more acceptable manner of using facts, Collet also used them for falsification of wrong hypotheses or prejudiced statements. Her most potent use of the facts in this way is in the context of the suggestion that married working women increased infant mortality. Her careful sifting of the available data shows that the evidence in fact warranted no such general conclusion. This type of analysis shows her qualities as a careful researcher at their best. In the context of complex social phenomena, she is ever dubious of accepting simple causal relationships and mono-causal explanations from what are said to be the facts. Moreover, when discussing controversial issues, she took the evidence from the contradictory case particularly seriously; there can be no generalisation where the associations are not unambiguously clear cut. Her care in interpreting the data, her precision in identifying both what they mean and cannot be taken to mean, and her inordinate sense of social responsibility which never allowed her to draw more from her data than these warranted, was undoubtedly one of the reasons why that great Indian statistician and economist, Mahalanobis, praised her contribution to his own (informal) statistical education. Here again, she was a praiseworthy daughter of Adam Smith who, like her master, was sceptical of the sometimes fantastical claims made on behalf of inferences drawn from rather inconclusive data.

Her stance on scientific detachment in drawing the findings of her research was matched by an open-mindedness in her opinions, which tended to avoid extreme positions. She never criticised women's willingness to marry and to become mothers and nurturers of their children; she simply pointed out the right of other women not to marry, and that the unmarried female state could be as great a source of happiness and fulfilment as any other. Such a position was facilitated by her demographic demonstration that in any case not all women could expect to marry, given the conventions about age differences between husband and wife marriage then entailed, and facilitating in turn a demand that society recognise this inability by paying adequate salaries to working women, especially to teachers. She likewise did not argue the equality of the sexes; she only desired equal treatment when appropriate and equal outcomes with respect to equal capacities and equal work. In this way, her views still merit considerable attention. They contain sensible perspectives on equal opportunity and the means by which unequal opportunities can be curtailed through changing the ingrained values and prejudices of the older generation (as in the case of some late Victorian fathers with respect to the education of their daughters).

These wider social perspectives and critical, common-sense thinking of Clara Collet are well illustrated in her perceptive and sympathetic review of Helen Bosanquet's *The Strength of the People* (Collet 1903: 81–4). This was a manual for social workers and charity organisers by a former student of Alfred Marshall at Cambridge,[7] the wife of Bernard Bosanquet, student and colleague of T. H. Green at Oxford and prominent activist in the Charity Organisation Society (McBriar 1987). It attempted to indicate the road to developing some 'theory of human nature and human life which will be a guide to us when applied to the actual problems which we have to face'. This was a laudable objective, particularly when part of Helen Bosanquet's aim was to provide economic awareness to the many charity workers, who all too often were 'adults of neglected economic education'. However, the 'practical critic' can have less patience with the book, Collet argued, because it reveals that despite the considerable experience of its author in charitable work, she does not fully realise the scope of her inquiry as disclosed by the facts of the case. This deficiency is briefly illustrated by Bosanquet's misleading treatment of early marriages, and illegitimate births, which indicates her misunderstanding of the full significance of their interconnections and the ramifications of that relationship. Her sense of numbers is also inadequate, and Collet makes the plea that 'it is only through the smoked glass of the statistician that we can venture to estimate … proportions of the problem at hand'. In addition,

> Mrs. Bosanquet would strengthen her argument and would win many more people to her cause if she could regard it as thinkable that the hostility of many to the teaching of the trained organisers of charity is due to a broader experience of life than many of the latter possess and not to a weaker intellect or lack of principle.

Knowledge and tolerance are essential parts of the armament of the social investigator and advocate of particular remedies.

'An authoritative figure in her field, and a good example of the educated woman of the period' (Rubinstein 1988: 71) is the assessment of one historian of women's emancipation in the 1890s. 'Throughout her active life it was to her that one naturally turned for help, if one was concerned with any problem of women's work or wages', was the recognition bestowed on her skills by perhaps the major economic statistician in England of her generation (Bowley 1950: 409–10). The words which she applied to her superior in the public service, her friend, co-investigator and fellow political economy student at London University, George Armitage-Smith (Collet 1923: 127) apply with equal force to herself.

> He had for many years attended to the business of the Royal Economics Society as a member of its Council. He figured in the *Economic Journal* both as reviewer and reviewed. He was among the founders of our society. … His special interest was Political Economy.

Her own thirst for useful knowledge in economics of relevance to understanding and improving the employment situation of women made her a true daughter of

Adam Smith, one whose pioneering labours on the subject deserve fuller recognition than they have at present received.

## Notes

1 This chapter was inspired by the Centre Workshop on Feminism in Victorian England after Michael White had drawn my attention to Clara Collet as an informant of Keynes on Jevons and Foxwell in his *Essays in Biography*, and as supplementing the obituary of Higgs in the *Economic Journal* (Collet 1940). Her quotations in that obituary from her diary and correspondence about Higg's altercations with Marshall over procedures in setting up the Junior London Economic Club sparked further interest in Clara Collet on my part, because of its relevance to my work on Marshall's biography (*A Soaring Eagle: Alfred Marshall, 1842–1924*, Aldershot, Elgar, 1995) particularly when I realised she had also worked on the Labour Commission and that her one book had been reviewed by Mary Paley Marshall (1902). For my subsequent, successful search for the Clara Collet Diaries I acknowledge assistance from Bob Black, the (London) National Registrar of Archives and the Librarian of the Modern Records Centre at Warwick University. I am grateful for permission from Dr Jane Miller to quote from the diary and from other Collet manuscript material. Research for this chapter has been assisted by financial support from the Australian Research Council and from research assistants Mark Donoghue, Sue King and Jack Towe, who dug out relevant library material and researched background.

2 It allows men 'to escape the degradation' of being accepted in marriage by young women solely 'as a means of [their] livelihood and an escape from poverty' (Collet 1902: 25–6).

3 This can only be a regional sub-section of the aggregate 1881 census data. The 1881 census indicates 3,887,000 women to be employed; 45 per cent in domestic service; 5.5 per cent in professional occupations; 36 per cent in clothing and textiles. Using her earlier figure (above, p. 123) of 123,000 teachers, this constituted 60 per cent of 'professional occupations and their subordinate services', or 3.2 per cent of the total female labour force (Mitchell 1962: 60).

4 In this context, Mary Paley Marshall (1902) praised Collet's work on infant mortality and married working mothers (Collet 1898b), discussed in Groenewegen (1994: 64–5). Marshall, as shown in Groenewegen (1994: ch. 4 [above, Vol. I, Chapter 14]), applied these propositions only to general (that is, male) labour and not to female paid labour, which he opposed particularly for married women.

5 Collet (1891b: 471) noted the difficulties in obtaining information from social surveys, on the basis of circularising questionnaires to women workers in Leeds.

> The willingness to satisfy abstract curiosity is not universal; nearly 800 cards were given back to me in sealed envelopes of which nearly 300 were blank; a few conveyed an intimation of the writer's opinion of the impertinence of the questions, and 479 answered carefully and accurately except on one point [the pre-marital occupation of their mother].

6 Above: pp. 128–9 and Groenewegen (1994: ch. 4 [above, Chapter 14]).

7 Helen Bosanquet completed her examinations in the moral science tripos with first class honours in 1889, taking Marshall's advanced class in political economy in the company of Flux and Chapman (see Groenewegen 1990: 52). She sent Marshall a complimentary copy of the book mentioned in the text, on which correspondence ensued which is reprinted in the *Memorials* (Pigou 1925: 443–6) and in the preface to its second edition.

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# Part III

# Twentieth-century moderns

# 24 John Maynard Keynes (1883–1946)

## A centenary lecture

The centenary of the birth of Keynes on 5 June 1883 has drawn a remarkable number of celebrations, articles, symposia and lectures. These indicate that even though Keynesian economics has been pronounced dead on numerous occasions (some even hopefully adding 'and buried'), interest in the man and his economics has clearly not passed away. It is interesting here to draw some parallels with Adam Smith, since apart from the fact that the two share the same birthdate of 5 June, the impact of their work on future generations of economists has been frequently compared because of its enormous importance in the development of the science. It can also be said that not since the Smith bicentenary of 1976 has there been such an outpouring on an economist whose works have now largely been consigned to the history of economic thought as classics. Here it should be remembered, however, that the fiftieth anniversary of the publication of the *General Theory* in February 1986 (only two and a half economists' conferences away) promises further celebrations and interpretations of Keynes' major work.

The pleasure to actively participate in a further celebration of Keynes' 'hundredth birthday party'[1] (for which opportunity I am very grateful to the organisers of this Conference) was enhanced by the challenge the occasion offers to pontificate on the subject of Keynes to an audience of economists drawn from all over Australia. This challenge has also the less pleasurable feature arising from the difficulty of choosing the precise subject matter for what has been rather ostentatiously billed as the Keynes Centenary Lecture. What could be contributed, one may ask, after the publication of the collective – but not joint – wisdom of no less than four Nobel laureates (Friedman, Hayek, Hicks and Samuelson – as *The Economist* published them in strict alphabetical order) which has been widely circulated in Australia by their separate publication in the Murdoch national press. Biographical tit-bits, although invariably useful in an evening performance which competes with the delights of a casino, and readily available when one deals with a life of such infinite variety as that experienced by Maynard Keynes, is in some ways impertinent after the biographies by Harrod, Robinson and Moggridge.[2] A further approach – considered and sadly rejected – was to present a survey of the rise and fall of Keynesian economics in Australia both with respect to academe and to the federal bureaucracy – an important story which still has to be written – but this is the subject for at least three years' arduous research and not for an hour's discourse.

One appropriate subject matter for this speaker which suggested itself was a brief consideration of some aspects of Keynes' last major book which all, more or less, fall within the broad category of methodology and thereby reflect on matters of which some members at least of this distinguished audience may be usefully reminded. By coincidence, the methodological issues on which I want to elaborate are all associated with eminent contemporaries of Keynes whose surnames start with H. The first of these issues relates to Keynes' method of causal ordering and its emphasis on time, an issue associated with Keynes' discussion with Hicks after the completion of the *General Theory*. The second matter concerns Keynes' attitudes to mathematical economics (its uses *and* limitations, on which he had much to say) and a topic broached on a number of occasions in discussions with Harrod both before and after publication of the *General Theory*. Finally, I want to examine briefly some of the implications of Heckscher's critique of Keynes and mercantilism; in particular his argument that the *General Theory* is the opposite of a 'general theory' because it only has quite 'limited applicability' (Heckscher 1955: II, 358). It can be noted at the outset that these issues are closely interrelated and have some bearing on the interpretation of Keynes' *General Theory*.

## I

As Vicky Chick points out in her recent book (1983: 14) on Keynes' *General Theory*,

> Much controversy exists, in print and in discussion papers, over whether Keynes' method was partial or general equilibrium, statics or dynamics, temporary equilibrium or disequilibrium. This controversy is taking place among economists whose conception of theory is firmly based on simultaneous equation systems, whether these be supply and demand equations of Marshallian partial equilibrium or the grand design of General Equilibrium … Shackle terms Keynes' method Kaleidostatics, trying to create an image or a method which freezes temporarily a continually shifting picture.

As Chick also points out, and as was clearly understood by friendly critics such as Harrod and Hicks in the period just before and after the publication of the *General Theory*, particular equilibrium would not do for relatively straightforward reasons,[3] while general equilibrium (insofar as that 'method' could have been known to Keynes[4]) was not useful since it totally ignores time and is in many other ways inappropriate for the problems which Keynes wished to tackle.

Keynes himself gave little explicit attention to these questions of method. However in a passage which cogently puts forward a summary of the essentials of the *General Theory*, 'the method' is perfectly illustrated. This paragraph, included as a separate Section III in Chapter 13 (which presents the completion of the theoretical argument by the provision of a general theory of the rate of interest), summarises the argument as it stands after the introduction of money into what Keynes called his 'causal nexus' (Keynes 1936: 173). Because of its importance in this context, it can be quoted in full:

> We have now introduced money into our causal nexus for the first time, and we are able to catch a first glimpse of the way in which changes in the quantity of money work their way into the economic system. If, however, we are tempted to assert that money is the drink which stimulates the system to activity, we must remind ourselves that there may be several slips between the cup and the lip. For whilst an increase in the quantity of money may be expected, *cet. par.*, to increase the volume of investment, this will not happen if the schedule of the marginal efficiency of capital is falling more rapidly than the rate of interest; and whilst an increase in the volume of investment may be expected, *cet. par.*, to increase employment, this may not happen if the propensity to consume is falling off. Finally, if employment increases, prices will rise in a degree partly governed by the shapes of the physical supply functions, and partly by the liability of the wage-unit to rise in terms of money. And when output has increased and prices have risen, the effect of this on liquidity-preference will be to increase the quantity of money necessary to maintain a given rate of interest.

It can be noted that this paragraph is written out at large in Chapter 18, which restates the *General Theory*. It also clearly illustrates why Keynes rejected E. S. Shaw's (4 April 1938) view that he had analysed variations in the rate of interest 'by means of a series of snapshots'. 'I am not concerned with instantaneous snapshots, but with short-period equilibrium, assuming a sufficient interval for momentary decisions to take effect' (Keynes 1972: XXIX, 276–81, esp. 277, 280). This letter to Shaw seems to contradict the kaleidostatic depiction of Keynes' method by Shackle, but matches Chick's (1983: 15) positive description which presents it as

> something of a compromise, using the partial equilibrium method to analyse a market taken in isolation, then feeding the results into the mainstream of economic events, which were themselves moving meanwhile. There is a distinct time stream of events, in sharp contrast to general equilibrium, where everything happens at once.

A superior depiction of Keynes' method is given in Pasinetti's essay on 'effective demand' (Pasinetti 1974: essay 2). This links it to the classical method of Ricardo, a comparison made earlier by Schumpeter (1946: 284–5, n30). Pasinetti's description of the method is well worth quoting:

> Like Ricardo, Keynes is always looking for fundamentals. He singles out for consideration the variables he believes to be the most important. All the others, giving rise to unimportant complications – though, as he says, always 'kept at the back of the head' for the necessary qualifications – are, for immediate purposes, frozen out by simple assumptions. The characteristic consequence of this methodological procedure is the emergence in Keynes, as in Ricardo, of a system of equations of the 'causal type', or, as we may also say, of the 'decomposable type' as opposed to a completely interdependent system of simultaneous equations.
>
> (Pasinetti 1974: 43–4)[5]

Pasinetti's illustration of this by the set of equations he regards as the heart of Keynes' system follow exactly the causal sequence of events by which Keynes himself summarised that theory at the point where money first enters:

$$\psi(L,M) \rightarrow \text{li} \rightarrow \phi(E, i) \rightarrow I \rightarrow \left\{ \begin{matrix} Y = C+I \\ C = f\,(Y) \end{matrix} \right\} \begin{matrix} \rightarrow Y \rightarrow S \\ \rightarrow C \end{matrix}$$

Given M, the ψ function determined i independently of anything else. Then, given i, the φ determined I independently of anything else. Finally, given I and the propensity to consume, we have a sub-system which determines Y, C and S in which, in the case of the last causality, runs from I→S. In addition, and not summarised by Pasinetti, Y→N and/or P, given the aggregate supply functions.

A number of important inferences can be made from this approach to sequential or causal ordering which is so characteristic of Keynes' approach in the *General Theory*. Keynes thought these matters so obvious that he did not feel a need to elaborate on them. Subsequent events showed that many of his interpreters did not follow this part of his presentation (or preferred not to follow it) because of the inherent difficulties and problems it implies by not providing precise conclusions. A clear case of such misunderstanding is provided in the Hicks (1937) interpretation of Keynes' system.

A major alteration to Keynes' method which this interpretation provides is the removal of time from the analysis. Hicks explicitly recognised this at the end of the paper, where neglect of 'all sorts of questions about the timing of the processes' is admitted (Hicks 1937: 115). The emphasis on interdependence gained thereby was at the cost of dropping all reference to time as a uni-directional variable (or as Joan Robinson has more strikingly put it, a 'one way street'). Nearly forty years later, Hicks strongly regretted this consequence (Hicks 1976: 287–90), and since then has tried to answer some of these questions about causality in economics in more detail (1979b: esp. ch. 7).

The benefit which Hicks saw arising from the general equilibrium framework into which he forced Keynes' theory arose from the higher degree of interdependence which that framework gave to the theory and thereby improved it in some unspecified ways. Hicks' argument is peculiar. It suggests, by way of an analogy comparing the labour theory of value with the 'modern' theory of supply and demand, that simultaneous determination of the rate of interest and income is superior to the causal ordering analysis in which interest and income are sequentially determined in a process taking time (Hicks 1937: 109). Such neglect of causal sequences (as Hicks admitted in his 1980 revisitation of IS-LM) meant that his simultaneous solution apparatus could offer nothing on policy decisions (Hicks 1980: 331).

The replacement of causal ordering or sequential analysis by interdependence and simultaneous equations had a more disastrous consequence. As is well known, it led Hicks to what he then described as a generalisation of the *General Theory* in which all the *distinctive* features of Keynes' work were neatly shorn away.[6] This was achieved by his substitution of saving for consumption in the general analysis, and by the far too close identification of Keynes' marginal efficiency of investment and liquidity preference analysis with Marshall's demand for capital function based on marginal productivity and demand for money function respectively. When in the final section of the paper, savings are functionally related to interest as well as to income for the sake of mathematical elegance and symmetry – both important features of what Hicks called 'generality' – the farce is completed and Hicks' generalised Keynesian theory turns out to be very similar to the classical theories which Hicks also discussed.

The defence of the general equilibrium method is that it emphasises the interdependence of economic phenomena. This feature is present also in classical general equilibrium analysis, and is not exclusive to the form pioneered by Walras for a pure exchange economy where resources are fixed and prices and output determined by a system of simultaneous equations of supply and demand. It was this approach that Marshall (who in these matters was *Keynes'* mentor) hid in his Mathematical Appendix as notes XIV and XXI because the partial equilibrium method was the more useful one while the other was mere mental gymnastics. Interdependence therefore need not be dropped from an analysis based on causal ordering, as is already clear from the quotation of Keynes' *General Theory* from which the discussion in this section started.[7]

## II

Keynes' views on mathematical economics contain also a number of dimensions which are not only interesting because they shed light on the interpretation of the *General Theory*, but more importantly because they contain some very interesting reflections on the usefulness and limitations of mathematical economics. As a starting point let me briefly quote the famous remarks from the *General Theory* on the dangers of 'pseudo-mathematical models of formalising a system of economic analysis', and thereby clarify further what Keynes meant by economic reasoning.

> The object of our analysis is, not to provide a machine, or method of blind manipulation, which will furnish an infallible answer, but to provide ourselves with an organised and orderly method of thinking out particular

problems; and, after we have reached a provisional conclusion by isolating the complicating factors one by one, we then have to go back on ourselves and allow, as well as we can, for the probable interactions of the factors amongst themselves. This is the nature of economic thinking. Any other way of applying our formal principles of thought (without which, however, we shall be lost in the wood) will lead us into error. It is a great fault of symbolic pseudo-mathematical methods of formalising a system of economic analysis, such as we shall set down in section VI of this chapter, that they expressly assume strict independence between the factors involved and lose all their cogency and authority if this hypothesis is disallowed; whereas, in ordinary discourse, where we are not blindly manipulating but know all the time what we are doing and what the words mean, we can keep 'at the back of our heads' the necessary reserves and qualifications and the adjustments which we shall have to make later on, in a way in which we cannot keep complicated partial differentials 'at the back' of several pages of algebra which assume that they all vanish. Too large a proportion of recent 'mathematical' economics are mere concoctions, as imprecise as the initial assumptions they rest on, which allow the author to lose sight of the complexities and interdependencies of the real world in a maze of pretentious and unhelpful symbols.

(Keynes 1936: 297–8)

In the light of Patinkin's (1976: 21–2) criticism of Keynes' analytical style (discussed in more detail later), it should be pointed out that Keynes' distrust of mathematical reasoning was already apparent in the biographical essays which he penned of Marshall in 1924 and of Edgeworth in 1926. The first of these endorses at least some of Marshall's criticisms of the use of mathematics in economics (Keynes 1961: 157–60). The second points to the limitations and difficulties which are invariably involved in the use of mathematics in the social sciences. Since it is probably less well known than the essay on Marshall, I quote from Keynes' views on the limitations of Edgeworth's mathematical economics:

*Mathematical Psychics* has not, as a science or study, fulfilled its early promise. In the seventies and eighties of the last century it was reasonable, I think, to suppose that it held great prospects. When the young Edgeworth chose it, he may have looked to find secrets as wonderful as those which the physicists have found since those days. But, as I remarked in writing about Alfred Marshall's gradual change of attitude towards mathematico-economics, this has not happened, but quite the opposite. The atomic hypothesis which has worked so splendidly in Physics breaks down in Psychics. We are faced at every turn with the problems of Organic Unity, of Discreteness, of Discontinuity – the whole is not equal to the sum of the parts, comparisons of quantity fail us, small changes produce large effects, the assumptions of a uniform and homogeneous continuum are not satis-

> fied. Thus the results of Mathematical Psychics turn out to be derivative, not fundamental, indexes, not measurements, first approximations at the best; and fallible indexes, dubious approximations at that, with much doubt added as to what, if anything, they are indexes or approximations of. No one was more conscious of all this than Edgeworth. All his intellectual life through he felt his foundations slipping away from him … Edgeworth knew that he was skating on thin ice; and as life went on his love of skating and his distrust of the ice increased, by a malicious fate, *pari passu*.
>
> (Keynes 1961: 232–3)

The passage from the memoir on Edgeworth concentrates on the view that what is appropriate in the natural sciences may not be appropriate in economics. A similar point is made in a lecture series given in 1932 where economics is *contrasted* with mathematics,[8] but the difference between natural sciences and economics is hammered home especially by Keynes in his letters with Harrod on the latter's Presidential Address to the British Association on the 'Scope and Method of Economics' (Harrod 1938). Some extracts from this correspondence may be quoted:

> It seems to me that economics is a branch of logic, a way of thinking; and that you do not repel sufficiently firmly attempts à la Schultz to turn it into a pseudo-natural-science. … Economics is a science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world. It is compelled to be this, because, unlike the typical natural science, the material to which it is applied, is, in too many respects, not homogeneous through time. The object of a model is to segregate the semi-permanent or relatively constant factors from those which are transitory or fluctuating so as to develop a logical way of thinking about the latter, and of understanding the time sequences to which they give rise in particular cases.
>
> But it is of the essence of a model that one does *not* fill in real values for the variable functions. To do so would make it useless as a model. For as soon as this is done, the model loses its generality and its value as a mode of thought. That is why Clapham with his empty boxes was barking up the wrong tree and why Schultz's results, if he ever gets any, are not very interesting (for we know beforehand that they will not be applicable to future cases).
>
> In the second place, as against Robbins, economics is essentially a moral science and not a natural science. That is to say, it employs introspection and judgements of value.
>
> (Keynes 1972: XIV, 296–7)

And less than a fortnight later,

> The point needs emphasising because the art of thinking in terms of models is a difficult – largely because it is an unaccustomed – practice. The pseudo-analogy with the physical sciences leads directly counter to the habit of mind which is most important for an economist proper to acquire.
>
> I also want to emphasise strongly the point about economics being a moral science.
>
> (Keynes 1972: XIV, 300)

Some of the features which Keynes stressed in discussing the dangers in using mathematical economics appear similar to those of Marshall, and therefore may have been part of the Cambridge oral tradition (cf. Fouraker 1958: 65). However, on a number of issues related to the use of mathematics in economics, Keynes appeared more concerned than Marshall. As indicated in the remarks already quoted, it was the spurious generality which *could be* inferred from the precise relationships conveyed by mathematical equations to which Keynes mainly objected, because this suggested that similar precision applied to the economic relationships which were to be analysed by the use of mathematics. Another opinion on the unsuitabililty of mathematical reasoning occurs in Keynes' arguments with Harrod on method, in which he indicated that economic material 'is not homogeneous through time' and that this is one of the major reasons why economics is different from the material studied in the natural sciences.[9]

A perspective on the importance of this matter for the interpretation of Keynes is provided by examining Patinkin's treatment of the issue. Patinkin is regarded as a leading interpreter of the economics of Keynes (see for example his most recent intervention [Patinkin 1983]), and such an examination is therefore worthwhile. In the introductory chapter to his historical evaluation of Keynes' monetary thought (Patinkin 1976) Patinkin starts his comments on Keynes' style 'by noting his failure to make use of graphical techniques'. In a subsequent paragraph he suggests hypocrisy on Keynes' part by contrasting the already quoted attack on the use of algebra in economics with Keynes' own use of such methods, not only in the *General Theory* (1936: 304–6, cf. 282–6) but especially in the *Treatise* (1930: ch. 10, but esp. ch. 20). Patinkin infers from this 'textual exegesis' that Keynes' lack of success with such formal model building in the *Treatise* may have been the reason why he criticised it in the *General Theory* (Patinkin 1976: 21–2). Patinkin's hypothesis on this point seems dubious to me.

The matter of the use of algebra by Keynes can be dealt with first. As Patinkin grudgingly admits (1976: 22), the general remarks on the dangers of mathematical economics made by Keynes should not be taken as an 'unequivocal rejection of mathematical methods'; it is a warning against its *wrong* use, both by the practitioners and by the readers who may inadvertently draw the wrong conclusions from this type of analysis.[10] It should be noted (which Patinkin does not) that Keynes himself gives such warnings prior to the use of algebra in the *General Theory*, a use incidentally which is far more frequent than Patinkin suggests. In fact it seems to me that he used it more (and with better results) in the *General Theory* than in the *Treatise*, something which is debatable but not debated by Patinkin, despite its relevance to his argument. Keynes provided similar warnings at the start of Chapter 20 of the *Treatise* – the chapter singled out by Patinkin as the *prime* example of Keynes' formalistic algebraic analysis. Here the reader is also given prior notice of the 'simplifying assumptions' and the 'artificiality' of the removal of 'the various complexities which are usually present in the actual life' but the use of the algebraic method is defended on the ground that the ideas of the preceding chapter can be more easily 'illustrated' in this way (Keynes 1930: I, 305). What Keynes is concerned about in the matter of the use of algebra – as he made abundantly clear in the remarks on Marshall and Edgeworth written a decade before the *General Theory* and during the early construction of the *Treatise*, was the *misuse* of mathematical analysis in economics.[11]

Patinkin's complaints about Keynes' failure to use 'graphical techniques' is less easily disposed of, largely because this matter relates more closely to a substantive point in Patinkin's own misrepresentation of aspects of Keynes' theory of 'effective demand' (Patinkin 1976: 21, n20, 84–94, esp. 87; 1977: 10–11). Surprise is expressed that Keynes did not follow his 'teacher, Marshall' in this respect, and Patinkin considers it even more surprising that Keynes did not follow the example of Joan Robinson and Richard Kahn, who had made such 'excellent' use of diagrammatic techniques in the analysis of imperfect competition (see Robinson 1933: v). This information and evidence is then trumped by Patinkin's remark: '(which I have on the authority of Sir Austin Robinson) that Keynes did make use of graphical techniques when lecturing to Cambridge undergraduates' (Patinkin 1976: 21).[12]

If Patinkin had studied Keynes on Marshall, an omission from his scholarship which has already implicitly been noted, he would have seen that Keynes was considerably less enthusiastic about graphical techniques for very similar reasons to those explicitly expressed in the context of algebra in the *General Theory*. After claiming that Marshall is the founder of the modern use of such techniques, Keynes continued his discussion of the subject by describing them as

> that elegant apparatus which generally exercises a powerful attraction on clever beginners, which all of us use as an inspirer of, and a check on, our intuition … but which generally falls into the background as we penetrate further into the recesses of the subject.
>
> (Keynes 1961: 157)

Even more significantly, the discussion of Marshall's role in this matter is concluded with the statement that, 'Marshall, having begun by founding modern diagrammatic methods, ended by using much self-obliteration by keeping them in their proper place' because he realised

> such parts of the bare bones of economic theory as are expressible in mathematical form are extremely easy as compared with the economic

> interpretation of the complex and incompletely known facts of experience and lead one but very little towards establishing useful results.
>
> (Keynes 1961: 158–9)

In short, diagrams (like algebra) constitute dangerous simplifications in economic theory, the limitations of which must be clearly understood. This appears to be a matter which Marshall as much as Keynes fully appreciated.

This criticism of Patinkin's views on Keynes' style would be unimportant were it not for the fact that he uses these views to bolster his misleading representation of the theory of effective demand, in which Keynes' notion of aggregate supply is particularly distorted. Patinkin's views here illustrate his inability to understand Keynes' method and his work, since he wants to compress the generality of the theory of effective demand into the restrictive strait-jacket of a two-dimensional diagram. Such a simple diagram – for which Patinkin seems to yearn almost pathologically (Patinkin 1976: 87) – would, had Keynes used it, have immediately entailed two unfortunate consequences from the point of view of Keynes' objectives. In the first place, it would have obfuscated the association between wage rates and aggregate supply functions (Keynes 1936: 24–5) which suggested a family of aggregate supply functions, one for each wage rate, *ceteris paribus* (cf. Chick 1983: 66, 92–3). Patinkin needs to distort this position because this aspect of Keynes' general theory does not fit in with his misrepresentation of it (e.g. Patinkin 1976: 101). Second, a diagram of the aggregate supply function would have 'frozen' a particular degree of elasticity into Keynes' portrayal of the concept, a matter which Keynes clearly wished to avoid for very good reasons.[13] I need hardly remind the reader that the degree of elasticity in the aggregate supply function determined the degree in which an increase in aggregate demand resulted in increased output and employment, *ceteris paribus*, and an increase in prices (Keynes 1936: 292–309, esp. 300–1).

The general discussion of diagrams allows the reintroduction of Harrod into the argument, since it is well known that Harrod supplied the only diagram present in the *General Theory* (Keynes 1936: 180, n1; Harrod 1951: 453, cf. Patinkin 1976: 96) in order to reconcile, as Harrod put it, the classical theory of interest with Keynes' own theory. This gloss on the matter by Harrod in his life of Keynes seems wrong, as can be seen from the evidence now that the whole debate between them on this subject has been made available (Keynes 1972: XIV, 526–65). It now appears that Keynes made this concession to Harrod only after an extensive argument over the validity of the classical theory of interest, which included substantive debate over the relevance of supply and demand analysis in that context (for the general significance of this debate, see Milgate 1977; 1982). When this discussion more or less ended with Keynes' suggestion to include Harrod's diagram as a means of making the matter more comprehensible to the reader, he explicitly warned that such a diagram could *not* constitute a theory of interest (Keynes 1972: XIV, 558). Keynes' last words on the subject to Harrod prior to the publication of his book deserve quotation: 'If the classical theory could not be made, even by you, to make more coherent sense than that, it does not deserve very many compliments' (*ibid*.: 561). A study of this debate reveals that here again the argument rested to a considerable extent on the oversimplification from the use of a diagram (the Marshallian supply and demand cross) which in the case of the classical theory of interest led to the disastrous consequence of 'faulty theory' (*ibid*.: 551).[14]

## III

My third set of comments in this tribute to Keynes relate to Heckscher's views on Keynes and mercantilism,[15] with particular reference to his concluding paragraph suggesting the inappropriateness of Keynes' title in so far as the word 'general' is concerned. In this paragraph Heckscher asserts that the *General Theory*'s '*specific* motivation is to be found in the persistent unemployment in England between the two World Wars', and that if the book is read in this 'historical context' it becomes the opposite of a 'general' theory and rather one 'of quite limited applicability' (Heckscher 1955: II, 357–8). For evidence, Heckscher refers to both the post-war experience 'when all productive resources, material and human alike, were strained to the breaking point', and to the qualitatively quite distinct historical evidence that unemployment in agricultural societies was 'independent of monetary and market conditions' and that the harvest there was 'the determining factor' (Heckscher 1955: II, 356–8).[16] On quite different grounds, Hicks (1937: 111) expressed the view that 'the General Theory of Employment is the Economics of Depression'.

In the evaluation of the generality of Keynes' *General Theory*, an evaluation which not surprisingly began with the first reviews the book received, time permits me only three brief arguments which cannot be fully elucidated. These might be summarised as the historical evidence argument, the theoretical argument, and finally, Keynes' own perception of the matter (which is the argument particularly appealing to the historian of economic thought).[17] Because I introduced the question of the generality of the *General Theory* by referring to Heckscher's work, I start with the 'historical evidence argument'.

Let me indicate immediately that this approach to deciding generality raises very difficult questions about the criterion required to refute a theory empirically (for a recent, but fascinating account of such difficulties, see Caldwell 1982) but rather than opening this Pandora's box, let me briefly refer to some famous applications of this 'test' for the generality of the *General Theory*. Heckscher's own opinion that on this ground Keynes' book is found wanting, has already been cited. He clearly thought that the events after 1945 invalidated Keynes' theory of unemployment, a course of events, incidentally, on which Heckscher himself was willing to generalise after only one year (Heckscher's article on the subject was originally published in Sweden in 1946). Many other economists, invariably *after* the event, have pointed to the post-war boom as a sign of the viability of the *General Theory* as a guide to policy for a period of thirty years or so (Hicks 1978: 1–3; Hutchison 1981: essays 4 and 8;

and there are plenty of others). They tend to suggest that Keynes' theory was important as a general theory for a considerable but finite time span and now needs reconstruction (cf. Harris 1947: 40–1). Still others have claimed, of course, that Keynes' theory never really fitted the facts. Examples are von Hayek and Friedman (as indicated in their brief centenary contributions for *The Economist*), who both regard Keynes' *General Theory* as a magnificent failure and unsuccessful experiment. (In conclusion on this aspect of the problem, I might suggest that before the theory can be tested in this way, its essential properties must be clearly and unambiguously demonstrated, and this, as the continuing debates on the interpretation of Keynes show, is not an easy matter.)

The second manner of attacking the generality of the *General Theory* was by theoretical demonstration that it was but a special case of the traditional theory, and that its importance therefore lay in pointing out some of the dubious assumptions with respect to real life on which that traditional theory rested. Much of this theoretical demonstration was achieved by Hicks (1937) as was noted in the first section of this paper, when commenting on his abandonment of sequential analysis for the sake of mathematical elegance and general equilibrium. It is well known that Hicks' graphical means of achieving this 'generalisation' of Keynes' theory was by general equilibrium analysis of the money and the goods market in IS-LM, in which the 'classical' theory of interest was reintroduced through the backdoor.[18] By generalising the equations in terms of income and interest, Hicks had 'generalised' the general theory in a 'general equilibrium way', a method later adopted by most other economists in the Keynesian era and adapted to modern conditions with the addition of the labour market, the Philips curve, and so on.[19]

Another important consequence of Hicks' (1937) transformation of Keynes' theory into a market-clearing oriented general equilibrium framework, is that this encouraged the focusing of attention on frictions in the system which were then seen as the real cause of Keynes' peculiar results from his 'slump economics' (Hicks 1937: 113–14). Hicks subsequently put this viewpoint more concisely (1957: esp. 143) when he argued that the novelty of Keynes' theory was his analysis of the implications of the imperfect working of the price mechanism, particularly, the part played in market clearing by interest rates and wage rates. Hicks can therefore be seen as one of the founders of the 'imperfectionist' interpretation of Keynes' economics (as Eatwell and Milgate [1983] have called it) which ascribes the Keynesian results to market failure and which therefore implies that Keynes' views are but one of the many departures possible from the general theory of markets when some of its assumptions are relaxed. Once again, the *General Theory* is not general.[20]

The validity or otherwise of the 'imperfectionist' view of the interpretation of Keynes cannot be pursued here (for a good critique of its validity, see Milgate 1982: esp. 104–22). I therefore move to commenting briefly on the views that Keynes himself had adopted on the scope and purpose of his book, and on the general theoretical position which he wanted to present in it. I might note here that both the preface and the opening sentence of the text of the *General Theory* ought to have left readers in no doubt about the fact that Keynes was providing a theoretical rather than an immediately practical book, and that he saw his general theory as a theory which included the 'classical' theory as a special case and which, in that sense, could therefore be described as general (Keynes 1936: v–vii, 3). These points were also clearly expressed by him on numerous occasions in correspondence and notes both prior to and after the publication of the book. For example, he wrote to Joan Robinson after publication:

> There is considerable difference between more or less formal theory, *which my existing book purports to be*, and something which is meant to be applied to current events without too much qualification by people who do not fully comprehend the theory.
>
> (Keynes 1972: XXIX, 186, my italics)

Prior to the publication of the book, but while discussing its proofs he wrote to Dennis Robertson,

> this book is a purely theoretical book.
>
> (Keynes 1972: XII, 520)

In some early drafts for the *General Theory* which are dated as being from the end of 1933, Keynes defines the meaning of *general* in the context of what he considered to be (and what is widely accepted to have been) its major contribution: the theory of effective demand. After defining effective demand, Keynes continued:

> For the proposition that supply creates its own demand, I shall substitute the proposition that expenditure creates its own income, i.e., an income just sufficient to meet the expenditure. This, we shall find, is a more general proposition than the former. For whilst the former must be taken to mean that a change in the aggregate cost of production will be balanced by an equal change in aggregate expenditure, the latter is consistent with inequality between changes in the cost of production and changes in expenditure.
>
> (Keynes 1972: XXIX, 80–1)

Although the manner in which these propositions were formulated altered in the period after 1933,[21] this point remained at the heart of the *General Theory*, as Keynes explained in the book itself, as is implied in its logical structure, and as Keynes himself never tired of pointing out to his friends and colleagues both before and after the publication of the book. Of particular relevance in this context is Keynes' friendly criticism of Lerner in response to his review of the *General Theory* (Lerner 1936), in which he largely discussed the two points which had played such an enormous role in his own mental development of the

*General Theory* but which he found insufficiently emphasised in Lerner's review. These were the 're-discovery of there being a problem of the equilibrium of supply and demand of output as a whole, in short, of effective demand', and second, 'the discovery that, as income increases, the gap between income and consumption may be expected to widen' (Keynes 1972: XXIX, 215). These two points were stated prior to publication as being 'the *general* principle' as he wrote to Sraffa, 'that *any* expansion of output gluts the market unless there is a *pari passu* increase in investment appropriate to the community's marginal propensity to consume' (Keynes 1972: XXIX, 159). Keynes had reintroduced a theory of output as a whole which thereby made output a *variable* in the analysis rather than a given constant (at the full employment level), and this was the positive feature which in his mind made his theory a general one. In addition, the traditional theory could not cope with this innovation, since its adjustment mechanism based on the traditional theories of interest was seen to be faulty theory within this general framework.

The theoretical innovations of which Keynes talked here have in some ways hardly been investigated subsequently in the framework in which he intended the theory to develop. He himself would have undoubtedly contributed to such development had it not been for his heart attack in the summer of 1937, World War II and his early death in 1946. (His father John Neville Keynes, who was thirty-one years old when Keynes was born, outlived him for nearly three years). There is a void here which theory has not yet filled. For example, the integration of the theory of value and money which Keynes wanted to achieve was unfortunately rapidly aborted after World War II with the introduction of the rigid and unproductive separation between micro- and macro-economics. Furthermore, as was outlined earlier in this section, the fact that Keynes was trying to develop a general theory was denied by friends and foes from the word go. The major post-war theoretical development outside the micro-macro framework illustrates this. General equilibrium analysis of the Walrasian type, which saw itself both as the general theory of which Keynes was the special case and as the integrator of micro- and macro-economics, is clearly unsatisfactory for a number of reasons, including some which have been canvassed in the first section of this paper. It is to be hoped that these aspects of Keynes' work will be more fully explored than they have been,[22] and that a general theory in all its relevant aspects – that is, full integration of the theory of value and the theory of output – can be constructed on the basis of the positive foundations he provided in the theory of effective demand. If this is successfully carried out over the next decades then we can be assured of even greater celebrations in 2083 for the commemoration of the bicentenary of Keynes' birth.

## Notes

1 The History of Economic Thought Society of Australia organised a symposium on Keynes, Marx and Schumpeter in conjunction with its second conference held in Sydney in May 1983, at which I spoke on Schumpeter [Chapter 27 below] and my colleague Murray Milgate on Keynes. The University of New South Wales organised

an afternoon's celebration with film and speakers on 17 June at which I spoke on Keynes and the Classics.

2 The sacrifice in terms of entertainment value of omitting biographical titbits can be gauged from the following extract of a letter by Lytton Strachey to Keynes (2 October 1924) on the subject of Keynes as biographer of Marshall, a subject pursued later in this paper. Keynes' answer (which is only summarised in the source for this correspondence) sheds some intriguing light on his attitude to Marshall *not* revealed in the *Essays in Biography*. The text on this exchange, from Holroyd's biography of Lytton Strachey, is as follows:

> It was very kind of you to send me your Life of Marshall, which I have read with the greatest interest and admiration. It seems to me to be one of your best works, and I only regret that it should be buried in an addendum to the Economic Journal. I wish there were more such things – just the right length and esprit – written in English. What a world it opens up! What strange people were the married monks of the nineteenth century! By-the-bye you don't say – perhaps in the circumstances you couldn't – whether he used French letters. Or was he (or she) naturally sterile? That they should have no offspring seems to have been an essential part of their system of existence. I am alarmed, horrified, impressed – almost over-awed – by such a life. Mon dieu! how wildly different are one's own experiences! The emotions and embraces in which I found myself involved as I read your Memoir – what, oh what, would the subject of it have said of them? After all, he took what was really an easy road to Heaven. And did he get there?' In his answer Keynes said that he didn't think that Marshall 'used letters', but that he became sterile soon after marriage.
>
> (Holroyd 1979: 900–1n)

Strachey's praise of the Marshall biography can be contrasted with the rather peculiar comment from Schumpeter, who argued that although 'it is the most brilliant life of a man of science I have ever read … in order to be perfect, it would have needed another fortnight's work' (Schumpeter 1946: 271–2, n12). It is tempting to ask whether Schumpeter wished to lay the foundations here for a marginal perfectability theory.

3 See Harrod's letters with comments on the proofs of the *General Theory* in Keynes (1972: XIII, esp. 531–2, 544), Harrod (1937: esp. 240) and Hicks (1936: 92). Keynes took Hicks to task for his inadequate understanding of this methodological point, as is illustrated in the correspondence after the publication of the *General Theory* (Keynes 1972: XIV, 72, 73, 75) which indicates that Hicks had some difficulties in understanding Keynes' position on the subject of method in relation to the rate of interest.

4 It should not be forgotten that general equilibrium as a system of economic analysis represented by the work of Walras and Pareto was then not really well known in the Anglo-Saxon world. An exception was the then young Hicks (for reasons explained in Hicks [1979; 1982]), as can be seen in his essay on Walras (Hicks 1934) and more importantly, in *Value and Capital*, on which he was then working. The general equilibrium revolution of modern economics did not really develop momentum till after World War II with the publication of Samuelson's *Foundations* and the second edition of Hicks' work in 1946. Keynes (1936: 176–7) contains only one reference to Walras, which refers to his interest theory as being 'strictly in the classical tradition', which Keynes was attacking. Many current interpretations have placed Keynes (wrongly) in a general equilibrium setting (see e.g. Patinkin 1976: 98–101).

5 Pasinetti explains, and this is worth stressing, that the term 'causal ordering' is used simply in the sense of an asymmetrical relation among certain variables, namely the indication of a one-way direction in which, in a formal way, the variables of the

system are determined. (Pasinetti 1974: 44, n27). Kalecki (1971: 78–9) used this approach in his determination of profits by capitalist decisions to spend under simplifying assumptions. Keynes reiterated this view on causal ordering in his debate with Tinbergen (and others, including Harrod) on methodological problems arising from the then emerging econometrics (Keynes 1972: XIV, 285–320, esp. the short exchange with Harrod at 304–5).

6 Hicks' IS-LM generalisation and its distortions of the economics of Keynes have been frequently analysed. See particularly Pasinetti (1974: 46–8), Minsky (1975: 32–88) and Robinson (1979: xi–xiv).

7 Keynes was fully aware of Marshall's acquaintance with the notion of general economic equilibrium, as is shown in his biography of Marshall (Keynes 1961: 183). On the matter that interdependence and general equilibrium need not imply Walras, see Walsh and Gram (1980).

8 Keynes 1972: XXIX, 37–8. This point is recalled by Bryce in the symposium on Keynes as seen by his students (Patinkin and Clark Leith 1977: 41). Cf. Keynes to Bryce, 10 July 1935 (Keynes 1972: XXIX, 150–1), in which Keynes indicates to him that writing economics is not the same as producing a mathematical proof.

9 This links the issue of the use of mathematics in economics to the question of time in economics, the matter pursued in the first section of this paper in the discussion of causal ordering. It also links back to Marshall (1920: vii), who regarded time as the chief difficulty in economics and who therefore stressed that biology rather than mechanics is the Mecca of the economist (*ibid.*: xiv). Keynes' views on the subject are also closely related to his arguments over econometrics with Tinbergen (Keynes 1972: XIV, 295–320), an issue also debated with Harrod in the context of his presidential address (*ibid.*: 297–302). It seems to have made little impact on Tinbergen (for example, Tinbergen 1947) or for that matter on Klein (1966), who fails to discuss these methodological issues in his assessment of the 'Keynesian Revolution'.

10 That this warning remains very necessary is clearly illustrated by Katouzian (1980: ch. 8), in which he analysed the lack of economic content drawn from current 'research' published in journals such as the *Review of Economic Studies* by mathematical economists such as Stiglitz, Batra, and Schweinberger, whose papers there cited constitute perfect illustrations of what Keynes in 1936 dubbed blind manipulations of symbols to create 'pseudo-scientific concoctions'.

11 This point has been firmly grasped by mathematical theorists like Pasinetti (1974: e.g. 118–20) who is invariably concerned with 'models and reality'. Schumpeter (1946: 261–2) also grasps this very clearly, but lamented the fact that Keynes did not use his authority to actively support the use of mathematical economics.

12 The evidence for this last statement is drawn from the discussion following the papers on Keynes by three former 'students' as reported in Patinkin and Clark Leith (1977: 72–89, esp. 72). This reads as follows:

*Patinkin:* I would appreciate more information from the student panel about Keynes' performance as a teacher. How highly would you rank him in this respect? And another, more specific question: I have mentioned Keynes' puzzling failure to use diagrams in his presentation of the theory of effective demand in the *General Theory*. Did he use diagrams in his lectures?

*Tarshis:* I don't remember that he ever used diagrams in class.

*Robinson:* He certainly used diagrams in the supply curve of output as a whole.

*Tarshis:* He did? I don't remember that. I've got them in my notes, but I never knew whether I copied them from him, or whether I sketched them in on my own. He did however formulate such concepts as the Propensity to Consume or the Liquidity Preference Function on the blackboard.

It should perhaps also be noted that Patinkin (1976) does not cite Sir Austin Robinson's views on Keynes' familiarity with Joan Robinson (1933) and on the association with Kahn (Patinkin and Clark Leith 1977: 79–82) voiced at the same symposium, presumably because Patinkin's interpretation of these matters is there twice described as *wrong*.

13 This point was of tremendous concern to Keynes, and incidentally, to Kahn in his elaboration of the multiplier (Kahn 1931: esp. 177, 179–80, 184). It should be noted that it was completely misunderstood by Hicks in his first review of the *General Theory* (Hicks 1936: 89–91), for which he was severely taken to task by Keynes (Keynes 1972: XIV, 71, 74–5) and on which Hicks then partially confessed his error (*ibid.*: 72–3). Patinkin appears to suggest the irrelevance of this discussion since it is couched in *Treatise* terminology, rather than that of the *General Theory* (Patinkin 1976: 91–2).

14 Keynes did not express any direct opinion on the macro-version of that cross, the Hicks (1937) IS-LM apparatus, but it seems clear from his correspondence on that subject, that he regarded it as an over-simplification of his theory (see Keynes 1972: XIV, 80–1, where three points out of four all indicate this fault in Hicks). The polite tone of this correspondence suggests that Keynes did not want to be too harsh on this ostensibly sympathetic account of his theory. I do not therefore agree with Patinkin's interpretation of this correspondence (1976: 100) nor Hicks' own discussion of it in *Economic Perspectives* (1977: viii, 143–6; cf. Robinson 1979: xiii–xiv).

15 My discussion ignores Heckscher's critical remarks on Keynes' use of his work on mercantilism in the *General Theory* (see Keynes 1936: 333–62; Heckscher 1955: II, 340–54). For a recent vindication of Keynes' interpretation of aspects of 'mercantilist' doctrine, see Hutchison (1978: ch. 5, esp. 127–38).

16 Few would quarrel with Heckscher's view that Keynes' theory does not really apply to pre-capitalist, or to largely agricultural societies where harvest fluctuations were an important if not major cause of fluctuations in unemployment. For a picture of Keynes' own opinion on the association between harvests and cycles, see his essay on Jevons which was published shortly after the publication of the *General Theory* in 1936 (Keynes 1961: 274–9).

17 I might indicate here that my reading of the literature suggests that the history of the *transition* from the *Treatise* to the *General Theory* has yet to be written, and that the relevant volumes of the works (Keynes 1972: XIII, XIV, XXIX) pose enormous historical problems because of the incompleteness of the material contained in them.

18 Apart from the remarks on causal ordering, the last paragraph of section II and its accompanying footnote 14 should be drawn to the reader's attention. There it was shown that Keynes pointed out to Harrod that Harrod's diagram could never constitute a theory of interest, while Hicks (1937: fig. 8.3, 112) clearly suggests it can. Second, the theoretical foundations of that diagram explicitly contradict Keynes' views as Hicks admitted (1937: 109–10), a matter for which he was taken to task by Keynes in their subsequent correspondence. Hicks' diagram suggests that an increased inducement to invest raises the rate of interest, while Keynes, of course, saw causality going the other way in this context (see letter of 31 March 1937, Keynes 1972: XIV, point 3). In the final letter of this correspondence, Keynes queries Hicks' reintroduction of the 'classical' theory of interest when he indicates that he does not understand Hicks' meaning that interest is determined by saving and investment (Keynes 1972: XIV, 83, and see 82 for Hicks' acceptance of the classical theory of interest). Hicks' departures from Keynes' theory are largely the result of his abandonment of causality and failure to understand the importance of time.

19 See the references provided in note 6 above. This perversion of Keynes' economics by the IS-LM apparatus is also acknowledged by interpretations such as Clower (1965) and Leijonhufvud (1968).

20 This argument based on institutional frictions in labour, goods and capital markets as the source of the trouble of the 1930s, was widely held in the United States at the time. Its theoretical implication was clearly spelled out by Viner (1936: esp. 152–3, 160–3), the one review of the *General Theory* to which Keynes replied in print, since it was the epitome of the view he was attacking. It was privately argued in correspondence by Dennis Robertson (Keynes 1972: XIV, 97).

21 A major milestone in this rewriting has been preserved in a short note to Kahn (dated 13 April 1934) which provides a more precise definition of effective demand and its consequences for Say's Law (and classical theory) and for the generality of Keynes' own theory (Keynes 1972: XIII, 422–3).

22 The post-Keynesian tradition in the manner in which that has been defined by Robinson (1975: xiv) and the group of economists associated with the projected journal 'The Surplus Approach' have been attempting to work out such theory. For a general discussion see Eatwell and Milgate (1983: esp. introduction).

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# 25 Keynes and Marshall

## Methodology, society and politics[1]

The importance of Keynes's Marshall heritage is increasingly being acknowledged in the discussion and interpretation of his economics. This is not surprising. After all, Keynes was a product of, and early participator in, the Cambridge school that Marshall had created. Moreover, he had the distinction of being one of the few personal students of Marshall among the many teachers who made that school so important in the period between the two world wars. As editor of the *Economic Journal* (Moggridge 1990), Keynes initially operated when many of the problems raised in the journal were thrown up by direct, and indirect, discussions of the Marshallian research programme. This had been spelled out in the oral tradition of his teaching (for a brief definition, see Groenewegen 1988: esp. 650) to be interpreted by his anointed successor to the Cambridge chair, by his indirect pupils (that is, the pupils taught by pupils) in the pre-World War I period, and by the later, post-1918 generation which taught economics at Cambridge until the end of the 1920s (cf. A. Robinson 1990). The major economic links between Marshall and Keynes have been long understood, despite the introduction of occasional biases (J. Robinson 1962: 79), even though the details will continue to be elaborated (for example Clower 1989; Leijonhufvud 1994).

It may be helpful at the outset to clarify the subject matter of this article. For a start, it does not deal with Marshall's possible influence on aspects of Keynes' economics in a technical sense. Instead, it explores aspects of the implications of a closeness in the relationship between these two major Cambridge economists based on my biography of Alfred Marshall (Groenewegen 1995). This was sparked by a reading in draft of O'Donnell's discussion of Keynes' projected works which were never written (O'Donnell 1992), providing fruit for interesting speculation.

A previous article (Groenewegen 1993) contrasted the perspective of the Marshall biographer with that of two recent Keynes biographers – Moggridge (1992) and Skidelsky (1983; 1992). This found both wanting in fathoming what I presume to have been the depth of the Keynes-Marshall relationship. The first section of this chapter gives a brief account of the essentials of its findings slanted towards matters of special relevance to the potential connection between the two on methodology – society and politics; these then form the subject for subsequent parts of the chapter. A final paragraph attempts some conclusions.

In short, my stance is that of one who has pored over the writings of Marshall but who is rather innocent of the far more voluminous Keynes papers. Insights from that comparative advantage of familiarity with the Marshall papers are useful for shedding light on aspects of Keynes' thinking, thereby modifying and perhaps even adding to the rich interpretations already available. In this way, a Marshallian intruder in a gathering of Keynes scholars may serve a useful purpose or, at worst, may learn from his audacity in trespassing on the field of study devoted to Marshall's greatest and most influential pupil.

## Marshall and Keynes: the biographical record

When Keynes first met Alfred Marshall can only be guessed at.[2] Joan Robinson's comment that 'Keynes … drank Marshall with his mother's milk' (1953: 6) is metaphorical (he was one and a half years old when his mother, Florence, attended Marshall's lectures in early 1885), but it points to the fact that Keynes would have met Marshall as a visitor to Harvey Road at an early age. Keynes (1972a: 213–14) himself mentioned dinner parties he attended at Balliol Croft, in particular remembering meeting Pierson (probably in 1904) and Wagner (probably in 1913) on such occasions. Individual social meetings between the two therefore commenced not long after Keynes had turned twenty-one in June 1904.

From the time Maynard Keynes graduated as twelfth wrangler in 1905 until Marshall's death in July 1924, there seem to have been three phases of especially close contact between the two men. The first covers the period of twelve months from June 1905 to mid-1906, when Marshall in the end failed to lure Keynes to attempt the second part of the economics tripos. This brought Keynes under Marshall's spell for virtually the whole of Michaelmas term 1905. The second period of close contact covers the period after Marshall's retirement in June 1908 to the outbreak of war in 1914, when Keynes was lecturing in economics at Cambridge. This period coincides with Keynes' substantial book writing programme, covered in what O'Donnell (1992: 771–8, 805–6) calls the first document of such plans. The third period covers the years of World War I, when contact seems to have been largely by Marshall-initiated correspondence and during which he proffered advice to his pupil, now ensconced in the Treasury, on aspects of the war and its finance. Much of this occurred during the early years of the war, when Marshall can be said to have still been reasonably mentally alert.[3] The contact appears therefore one-sided, though this picture is perhaps exaggerated from the fact that Keynes' responses, if any, have not been preserved among Marshall's papers.

There is also a fourth period, largely of posthumous 'contact', during which Keynes once again immersed himself in Marshall as 'pupil' of the 'master'. This started in May 1924 when Keynes visited Marshall at the start of his 'final illness', a visit he tenderly described in a letter to Lydia (Hill and Keynes 1989: 195) and when Keynes may also have pumped the old man for reminiscences about his early years (Keynes 1972a: 172, n2). It can be said to have lasted for two years thereafter. These cover the period when Keynes first wrote his *Memoir* of Marshall (Keynes 1972),[4] then when he assisted Pigou in editing the *Memorials* (Pigou 1925: v), and finally when he himself edited Marshall's *Official Papers* for the Royal Economic Society, a task completed by June 1926, the date given in its preface (Marshall 1926: v). This posthumous contact between Keynes and Marshall's work is important because it largely coincides with documents 2–4 of Keynes' writing programme, as described by O'Donnell (1992: 778–93, 306–12) and with some of the *Essays in Persuasion* on social and political matters (Keynes 1951), which these writing plans may have helped to assist. Marshall's death gave Keynes privileged access to the Marshall papers, including their thoughts on economic progress and ideals for that final volume, of which only draft outlines and scraps of notes are extant. As pure speculation, it may be suggested that some of Keynes' writing projects for the early 1920s may well have been produced as a conscious, or subconscious, desire to explicitly complete some of the 'master's' unfinished work that had been placed before him during the months after his death.

The first phase in the chronology of the Marshall-Keynes relationship as summarised here was quite intense, an intensity in my view that is perhaps best captured by Harrod's account (1951: 105–21). This provided a brief period of very concentrated economics training by Marshall. In an as yet rather barren economics tripos, it is not surprising that Marshall used this contact with Keynes to put enormous pressure on what he saw as his potentially most gifted pupil, to win him for professional economics. Keynes' solid economics reading over the summer of 1905 is reflected in the list of books he claimed to have read on enrolling for Marshall's classes in 1905 (reproduced facsimile in Groenewegen 1988: 667). He attended Marshall's 1905 Michaelmas lectures on advanced political economy, including the special difficulties class held on Saturdays, and he wrote a substantial number of essays for Marshall, which Marshall vigorously corrected, and praised, in red ink (Keynes 1972: 215–16, n). Layton's lecture notes[5] for these classes indicate that the lectures were ostensibly devoted to international trade and government action, and that they commenced with a brief discussion of the history of the subject and introduced encouraging autobiographical fragments of how the lecturer himself had come to economics.[6] The lectures also discussed the following: methodological issues, including the view that flexible definitions were the most useful and that definitions in any case should be treated as a 'matter of convenience'; issues in capital theory; economic progress, with special reference to Britain; aspects of coal and steel production and their importance for that progress; taxation and rent; the association between religious ideas and the durability of primitive socialist societies (probably illustrated from Marshall's 1875 experience with the Shakers in the United States); and the effect of permanent peace on the level of the rate of interest. Marshall's second-term (Lent) lectures for 1906 elaborated the quantity theory of money, the heading used by Layton in his notes. This is presumably the reason why Keynes (1972: 190, n1, 191, n2, 216) later recalled having attended them, even though by then he had already dropped any plan of taking tripos examinations, instead of recalling the 1905 Michaelmas term lectures, of which some of his brief notes are extant. Both sets of lectures stressed the association of economics with ethics – the practical nature of economics and its relevance to human improvement – a lesson which, Austin Robinson (1947: 25) suggested, Keynes never really forgot.[7] For our purpose here, the point to be made from Keynes' attendance at these lectures is on the broad moral and social context and problem solving to which Marshall introduced his pupils in advanced economics. The practice sharply contrasted with Pigou, whose lectures emphasised the analytic rather than the practical.[8]

The second period of contact between the two is of greater interest. Before retiring from the chair, Marshall had arranged the appointment of Keynes to the economics teaching staff as a lecturer. In the years immediately afterward, he assisted his young protégé in various ways. Marshall gave Keynes easy access to his personal library by offering him material on virtually permanent loan. When Keynes was appointed as official custodian of the economics books for students in the tripos (most of them at this stage effectively donated by Marshall), Keynes was necessarily placed in some contact over their treatment with their previous owner.[9] Given Keynes' interest in writing papers on topics such as 'the "long run" in economics' with reference to 'the element of doubt in the determination of value', 'commercial fluctuations', 'English gold reserves', 'official index numbers of prices', 'proposals for an international currency',[10] 'the riskless rate of interest', and 'mathematical notes on the median' as well as texts on money and the 'mathematical organon of economics' (O'Donnell 1992: 805–6), these forays into the Balliol Croft bookstacks would have been quite helpful. Preserved correspondence shows the nature of some of that assistance. On 20 November 1906 (therefore outside the period under consideration) Marshall wrote Keynes to persuade him to enter the Cobden Prize, inviting him to call on either 24 or 26 December to glance at a meagre bibliography on the history of interest he had prepared and of which, nevertheless, he had several items to show Keynes. Whether his list included Wicksell's *Interest and Prices* can only be speculated on. In December 1910, Marshall informed Keynes that he had found his copy of Rau, with its curves of supply and demand in the fifth edition, and that he was in no hurry for its return.[11] The letter also gave Keynes some gossip about Marshall's acquaintance with Fleeming Jenkin's work in the 1870s and the demonstration of Henry Cunynghame's 'very original' machine for drawing rectangular hyperbolas at an 1873 meeting of the Cambridge Philosophical Society.

The degree of closeness the Marshall-Keynes relationship could reach at this time is neatly illustrated in the well documented Pearson controversy, an event probably closely associated with Keynes' intention to write on 'the logical basis for correlation' (O'Donnell 1992: 805).[12] The episode itself is described in some detail in Skidelsky (1983: 223–7) and Moggridge (1992: 205–7) in a way that fails to do full justice to Marshall's role in the affair. Marshall had entered the fray by writing to *The Times* on 7 July 1910, since the matter of parental alcoholism and its effects on their offspring was an issue that greatly interested him. This was before he realised that Keynes had replied to Pearson on the subject at article length for the *Journal of the Royal Statistical Society*, as Keynes indicated in a letter to Marshall dated 11 July. This letter mentioned that Keynes himself had been unsuccessful in reaching *The Times*' readership and included for Marshall a copy of the proofs of his article attacking Pearson, intended for the July issue of the *Statistical Journal*. From then on, the two economists acted as comrades-in-arms intent on verbally thrashing the 'insolent' Pearson, until the controversy concluded in early 1911. During the battle, Marshall fed Keynes recollections of his talks with Todhunter, possibly going back to 1866, about what Marshall took to be his opinion on the inapplicability of the method of least squares to *all* types of statistical data (Marshall to Keynes, 14 September 1910). He also referred Keynes to new material coming from the enemy, sending him his copy of Pearson's specific reply in pamphlet form to the two Cambridge economists,[13] asking him whether he wished to reply to a letter from Galton to *The Times* in support of Pearson, and urging Keynes to finish the controversy on his behalf since he had foolishly told *The Times* in his third letter that this would be his last word on the subject.[14] However, as late as 31 January 1911, a letter from Marshall alerted Keynes to Pearson's abusive letter in the December issue of the *Journal of the Royal Statistical Society*, offering Keynes, if he wished to reply, his own copy of the letter with critical notes thereon. As Skidelsky (1983: 226n*) briefly notes, the debate shows the close affinity between Keynes' and Marshall's medical views on the potential for heredity from alcoholic parents to their offspring, an affinity that can be widened to embrace support for the eugenics movement but not, as Skidelsky (1983: 225) wrongly surmises, encouragement of a 'selfish' abstention from children to enable intellectual married couples to lead the good life.[15] It also suggests a methodological kinship in scepticism about the worthiness of certain statistical techniques in the social sciences. Reading this and their other correspondence of the prewar period made me realise how strong was their rapport at this stage, making it all the easier to understand Keynes' critical perspective on Marshall in his obituary assessment, and his criticism of the sentimental and maudlin approach of Pigou to the subject.[16]

Although the First World War phase of the Marshall-Keynes relationship is largely irrelevant to the purpose of this discussion, this is not true of the fourth, mainly posthumous phase, starting with Keynes' final visit to Marshall on 16 May 1924.[17] On 20 July, Keynes spent three and a half hours with Mary Paley gathering material from her for his *Memoir*. On 12 October, well after the *Memoir* had been completed, Keynes spent 'two or three hours with her working through papers and things' (Hill and Keynes 1989: 227–8, 233–4). In between, Mary Paley Marshall had bombarded Keynes with letters about her husband, both before and after completion of the *Memoir* by early September.[18] The *Memoir* itself expressly thanked Mary Paley Marshall for her assistance (Keynes 1972: 161, n1), which included a set of detailed notes she had prepared for Keynes and from which Keynes quoted freely in the *Memoir*.[19]

The *Memoir* also obviously owed much to his parents (including especially his father's extensive diaries) and to Edgeworth (Keynes 1972: 205, 207, n2), while the version printed in the *Memorials* (Pigou 1925: 1–65) corrected errors that had been pointed out to him by former Marshall acquaintances who had read the *Memoir* (Keynes 1972: 161). Last, but not least, Marshall's own papers were used on a number of occasions (Keynes 1972: 192, n1, 201–3, 231 for some of the more important references to them), but the evidence is ambiguous on what Keynes gleaned for himself from this source or what, as evidently was rather frequently the case, Mary Paley had selected for him. This makes an important aspect of the potential Marshall heritage rather difficult to ascertain.

Apart from writing the *Memoir*, this posthumous phase in the relationship involved compilation of Marshall's bibliography for publication in the December 1924 issue of the *Economic Journal*,[20] assisting Pigou in his editorial task on Marshall's literary remains for the *Memorials* and editing Marshall's *Official Papers* for publication. Work on Marshall's bibliography would have reinforced the impression Keynes so clearly gave in his *Memoir* that Marshall was a person of wide and diverse interests and that the *Principles of Economics* to which he had devoted so much of his life only presented a very incomplete picture of the range of his thought. No details have survived about the nature of Keynes' task in assisting Pigou's editorial work on the *Memorials*. His October visit to Mary Paley may have been partly undertaken to assist in this matter, though other objectives for the visit are equally plausible.[21] To what extent this editing involved a thorough search of Marshall's manuscripts housed in 'the nests of drawers' of his study (Keynes 1972: 213) is also not known. Editing Marshall's *Official Papers* likewise provided an opportunity to revisit a wide array of Marshall's economics. This was a useful reminder that Marshall's government evidence went beyond the famous testimony on trade depressions, monetary theory, and the fiscal policy of international trade to reflect on the aged poor and pension schemes and on government finance in general (cf. Groenewegen 1990).

For the more than fully occupied Keynes of the mid-1920s, this pious devotion to the 'master' is a striking tribute of the admiration Keynes felt for him. This admiration shines through some of the phrases in the *Memoir* on Marshall the economist:

> within his own field, the greatest in the world for a hundred years.
>
> Much, but not all, of this ideal many-sidedness Marshall possessed. … His mixed training and divided nature furnished him with the most essential and fundamental of the economist's necessary gifts – he was conspicuously historian and mathematician, a dealer in the particular and the general, the temporal and the eternal, at the same time.

Jevons' work

> lives merely in the tenuous world of bright ideas when we compare it with the great working machine evolved by the patient, persistent toil and scientific genius of Marshall … [in sitting] down silently to build an engine.
>
> (Keynes 1972: 173, 174, 184–5)

Is it a wonder that this 'absurd little man' who had brought Keynes to economics, left his mark on so many parts of Keynes' own work?

## Methodological parallels

Keynes' *Memoir* contains references to two important methodological aspects where Marshall's opinions can be described as rather similar to his own. Hence they may quite possibly have influenced Keynes' perspectives on the subject. One dealt with some essential features of the nature of economics; the other raised the well known issue about the dangers of mathematical reasoning in economics, including that of employing sophisticated mathematical and statistical techniques to draw inferences from the data. This section emphasises methodological aspects of the first of these issues, though for the purpose of this article, the second issue cannot be totally ignored.

The general characteristics of Marshall's economics highlighted by Keynes are its practical nature: 'the whole point lies in applying the bare bones of economic theory to the interpretation of current economic life' (Keynes 1972: 196). This quality also gave economics its transitory nature, because the 'profound knowledge of actual facts of industry and trade' are constantly and rapidly changing (196), as was so strikingly illustrated in Marshall's own *Industry and Trade* (228). Economics was therefore 'far from a settled affair – like grammar or algebra – which had to be learnt, not criticised', to use Sanger's words which Keynes approvingly quoted (223). This implied the importance of developing an engine of analysis rather than a body of settled principles. Such an analysis had to be capable of organising and selecting relevant facts and assisting in finding solutions to actual problems. It should be emphasised in the quite different world of economics in 1994, that this meant that determinate solutions to theoretical problems had relatively little importance in Marshall's foundations of economics. He was interested in comprehending an actual economic situation and on that basis to try to grasp the economic and social mechanisms by which certain desirable social and economic consequences over the longer period could be achieved. Facts went hand-in-hand with theory, justifying Marshall's factory inspections and his preference for reading factual books as confessed to J. B. Clark (in Pigou 1925: 417). Application was as essential as explanation, whether to temporal problems like structural and period unemployment, depressed industry, or an overstimulated war economy, and shortage of the major monetary metal or deficiencies in government revenue-raising capacity, or to the more eternal and higher themes of economic and social progress through human improvement in its widest sense. The final chapter of Book I of the *Principles* illustrates Marshall's philosophy of economics to perfection.

The engine that Marshall built in those *Principles* enabled him to deal with the particular in terms of the general; to explain a wide range of economic issues by the sophisticated analytical armory that he brought into action under the rubric of the theory of value or, more broadly, the theory of supply and demand.

Marshall's theory of supply and demand in this context should not be narrowly conceived in terms of stable functions of price. These were only a minor part of the analytical apparatus, despite the attention lavished on their detail by some of his early pupils (cf. J. Robinson 1953: 22). Marshall used the terminology of supply and demand as shorthand for the major forces in economic and social life: wants and activities, production and consumption, to use his terminology for variously titling Books III and IV of his *Principles*. These categories were capable of assisting in explanations of the theory of relative prices and the theory of factor prices, the theory of output and the theory of employment, the theory of money and the theory of crises, the theory of taxes and the theory of trade. They were to be seen as drawer labels in the filing cabinet for storing and classifying relevant details, to paraphrase Friedman's metaphor. They had to be handled with the greatest of care because they needed *ceteris paribus* clauses with respect to time, with respect to interdependence, with respect to space, with respect to institutions, for a person is a poor economist, Marshall once remarked (1920: 368) who claims to find the theory of value easy. In building his apparatus for the mind, Marshall was searching for the holy grail of the ability to discover temporary, relevant truths, not looking for timeless, universal, equilibrium positions, useful though these could be in devising preliminary and exploratory strategies for analysis. Economics was a way of thinking, not a fund of ready-made conclusions and propositions.

Keynes' sympathy with this programme is clear from the introduction he wrote for the *Cambridge Economic Handbooks*, whose publication commenced in the early 1920s (Keynes 1922: v–vi). Although this paid homage to both Marshall and Pigou as the persons who have 'chiefly influenced Cambridge thought for the past fifty years', it was Marshall's influence that stayed dominant in this context as far as Keynes was concerned. Keynes' emphasis on the virtue of the relative imprecision in economics contrasts sharply with the formal mathematisation in which Pigou liked to indulge when writing theory, and the manner in which he tried to present those parts of his system which Marshall had left purposefully untidy and allusive in a way that made them unambiguous, precise, clear, and often enough, banal (Vaizey 1976). This difference in style was already noted in connection with Marshall's and Pigou's lectures when Layton and Keynes attended them; moreover, Pigou's attempts at tidying Marshall's theory by simplification annoyed Marshall personally on several recorded occasions (Marshall to Pigou, 12 April 1916, in Pigou 1925: 43–4; see also Bharadwaj 1972). It makes for a substantial wedge between Marshall and the Marshallians, particularly those Marshallians who developed Pigou's neat theorems, whose actual foundations in the volumes of Marshall's principles and applied economics were invariably qualified in the way Marshall himself had left them to his students. Pigou never absorbed Marshall's message on method, conceptualisation, the nature of abstraction, style, and vision – parts of Marshall's economic legacy that Keynes found attractive and emphasised, not only in his tribute to Marshall but also in the practice of his own work. Keynes tentatively acknowledged this in his preface to the Japanese edition of *The*

*General Theory*, which sharply differentiated Marshall from his immediate followers on the subject of the need for a theory of output and consumption as a whole (Keynes, 1973a: xxix).

This Marshallian methodological legacy is visible in *The General Theory*, which uses important parts of Marshall's analytical engine. One of these is Marshall's limited emphasis on the virtues of market clearing as compared with Pigou, and his hesitancy in applying the supply and demand apparatus to the labour market. Another is the sure awareness of the monetary nature of economic life in his analysis, despite the explicit intention to omit such monetary considerations from his *Principles*. However, Marshall drew attention to the dangers from this omission in matters like the rate of interest (Marshall 1920: 593–5), while his concluding paragraph in the book alerted readers to the provisional nature of its contents. The first volume was unable to reach 'practical conclusions' because 'nearly every economic issue depends, more or less directly, on some complex actions and reactions of credit, of foreign trade, and of modern developments of combination and monopoly' (722).

It can also be argued that Marshall's main engine of analysis, here broadly presented as the theory of supply and demand, played a major part in the conceptual apparatus of *The General Theory*. After all, its key elements were aggregate supply and demand, with the supply analysis very Marshallian in its conception. Supply and demand as broadly conceived are also embodied in many of the key variables of the analysis, even though sometimes in startling new dress (for example, the theory of interest). Moreover, given Marshall's feelings about the transitory nature of economic principles, and his acceptance of the fact that texts like his *Principles* had the inevitable fate of becoming 'waste paper' (Marshall to Fay, 23 February 1915, in Pigou 1925: 489–90), I doubt whether he would have been as upset about Keynes' treatment of part of theory of saving-investment as some of his indirect pupils were. Marshall may in fact even have welcomed Keynes' treatment as a solution to the conundrum of his implicit supply and demand analysis of the capital market, with its ambiguities in labelling the horizontal axis and his doubts about portraying saving as a simple increasing function of the rate of interest. Interesting though such speculations may be, they are far removed from the topic of methodological empathy between Keynes and Marshall. Enough has been said on the last to show that this empathy had clear antecedents in the Marshall-Keynes interrelationship as here outlined.

Marshall's critical perspective on mathematical economics was fully captured in Keynes' own (1972: 185–8), which likewise recognised Marshall's claim to being 'the founder of modern diagrammatic economics'. This drew on the preface to the first edition of the *Principles* (Marshall 1920: x–xi) where Marshall suggested such criticisms and expressed a qualified preference for diagrams, which could only be used for illustrative purposes or for self-clarification. Ten years before, Marshall had made this point to Edgeworth, arguing that 'curves' were to be preferred to algebra because 'they bear more obviously on the science of statistics'. However, in the specific case of the labour market where

Edgeworth wanted to use them, Marshall argued that supply considerations of labour were so complex, that his use of curves in this context 'had been disappointing'.[22] Keynes' reluctance to use diagrams in *The General Theory* is also well known; the one diagram in that book, and in fact the only one used in his published economic writings, was 'suggested to' him by Harrod after prolonged debate (Keynes 1973a: 180, n1; 1973b: 558, where Keynes told Harrod as a loyal Marshall pupil that such a diagram could never constitute a theory of interest). Diagrams could only accommodate the elementary, and they tended to freeze specific assumptions about elasticity from the specific shape of the curve given in the illustration, thereby implicitly constraining the generality of the analysis. [discussed in more detail above, Chapter 24, 151–3].

Keynes' criticism of econometrics in correspondence with Harrod and Tinbergen has been too frequently elaborated to require much comment here. However, its association with Marshall's critical comments on the subject deserves more discussion. Their joint assault on Pearson was highly critical of the regression techniques which Pearson was employing on social data, and it induced Marshall to inform Keynes about earlier methodological criticisms of this nature which he had heard Todhunter make. Marshall expanded on such criticisms in correspondence with H. L. Moore. This concerned Moore's *Laws of Wages*, of which he had been sent a complimentary copy, and whose method Marshall criticised from the casual dips he had made into its contents on the basis of longstanding beliefs. These told him that

> no important economic chain of events seems likely to be associated with any one cause so predominantly that a study of the concomitant variations of the two can be made as well by mathematics, as by a comparison of a curve representing these two elements with a large number of other curves representing their operative causes: the *caeteris paribus* clause – though formally adequate seems to me impracticable. [Second,] nearly a half of the whole operative economic causes have refused as yet to be tabulated statistically.

Over long periods of time, results from this method were particularly dangerous. Marshall enclosed a letter he had written to Edgeworth making similar points on Moore's book in a different way. Much later, Marshall wrote Moore (15 December 1921) that he had tried to solve issues of interrelating many variables during the 1870s by means of statistical data recorded in his Red Book. This contained, on an annual basis for both the nineteenth and earlier centuries, consecutive statistics of basic economic variables along with political and other events, and by this means he had tried to obtain

> *a posteriori* results by the method of concomitant variations. … The result was that I found the depth of my ignorance as to the relations between the

> development of different economic phenomena to be even greater than I had supposed, and that is saying much.[23]

The methodological empathy between Marshall and Keynes, far greater than that existing between Keynes and Pigou, undoubtedly owed much to their close relationship over the last two decades of Marshall's life. As Keynes had written in the context of Pigou's Marshall Memorial Lecture, Pigou had failed to grasp this strong side of Marshall's work, the aspect which Keynes had specifically highlighted in his own appreciation of Marshall. Keynes, of course, went much beyond Marshall's position, but he shared Marshall's strong distrust of theory for theory's sake, his love for facts, and his aim of the practical nature of economic science.

## Social progress and the good society: two Cambridge views of the 1920s

The penultimate paragraph of Keynes' *Memoir* (1972: 231) draws attention to the fact that Marshall's last two years were devoted to an attempt at constructing a final volume dealing 'with the possibility of social advance'. At one time, Marshall described his intentions to his wife as writing a twentieth-century Plato's *Republic*, a sketch of a Utopia in which the ideal was to be blended with the realities that made achievement difficult. Marshall's sharply declining powers of concentration and memory from 1922 onward meant that the task effectively got no further than a bundle of notes. These contained various outlines, sketches for some of the chapters, and reflections on 'Utopias' either to be admired or to be condemned and forgotten. Whether Keynes gleaned the information about this project from Mary Paley Marshall and the preface of *Money, Credit and Commerce* (Marshall 1923: vi) or from a perusal of these notes in the Marshall papers during the months after Marshall's death is not clear. What is clear is that some time during the early 1920s Keynes himself was sketching an outline of essays on the 'Economic Future of the World', a project to which his mind was probably turned by the pessimistic outlook for humanity in the aftermath of World War I (O'Donnell 1992: 778–81, 806).

Marshall's association with this topic had been long-standing. As Keynes also wrote in his *Memoir*, from autobiographical snippets of the later years of Marshall's life (Keynes 1972: 170–1), Marshall's need to understand the economic constraints on the possibilities for social progress had driven him initially to study political economy in the second half of the 1860s. Marshall's enduring support for this basic aim in economic study is also clear from at least part of the opening chapter of the *Principles*, concerned as it is with progress as a means of alleviating, and ultimately removing, the human degradation involved in poverty. Moreover, the high theme of progress, an almost inevitable consequence of human evolution, permeates substantial sections of the book. Alas, these fall precisely in the parts now least studied or read in that volume.

'Aims for the Future' had been a separate book for the second volume of the *Principles* as projected in 1887 to Macmillan (Whitaker 1990: 195); and, though dropped from the 1903 outline of that volume (201), it resurfaced when the final volumes actually started to take shape. In his eightieth year, Marshall partly transformed the separate volume on the future into the more realistic project of a volume of previously published essays dealing with functions of government and possibilities for social advances,[24] but the separate volume was not forgotten. Preserved outlines give a good indication of the form it was intended to take (see Whitaker 1990: 217, for an example).

The flavour of Marshall's thinking on this subject can be demonstrated from fragments preserved in the Marshall Library:

> Attainable ideals
> Rus in urbe, urb in rure.
> Variety in life, even when hands are monotonously at work.
> A right economic government by the people of their governors.
> Equal early opportunities: graduated take of opportunities, stimuli, fruition?
> Steadiness of employment, provision against unsteadiness groups unselfishness.
> Struggle without ferocity.
>
> Thus our ideals are: work for all intelligent but not carried to the length to exhaust the nervous [?] energies (unless of course under the pressure of exceptional emergency). This is not a rule for the student or the artist, when a divine frenzy is on him, he must let it have its head.
>
> True human progress is in the main an advance in capacity for feeling and for thought, yet it cannot be sustained without vigorous enterprise and energy. A certain minimum of means is necessary for mankind's well being, something more than that minimum is necessary for a high class life.
>
> Difficulties of the businessman in risk-taking. … This is apt to be overlooked by ardent social reformers. They recognise the necessity for capital – that can be annexed by the State and handed over as the basis of self-governed businesses: and they assume, with some measure of justice, that the workers themselves will be able to supply a good deal of faculty for routine management. But they do not seem to recognise that industrial progress is dependent on the right selection of ventures: they do not make provision for the control by the State of the action of the workers in regard to these risks. If no considerable risks are taken, there will be no progress: if considerable risks are taken at the expense of the State by men who have no special genius for handling them, the State will lose much of its capital. Meanwhile those who have the faculties needed for the higher work of business are likely to have escaped to seek any capital over which they may have control in other lands.

Collective enterprise now has several advantages

(i) joint stock management – like the difficulties government enterprise is open to
(ii) government corruptibility reduced by publicity.

Conclusion: Government business must extend and ought to extend: but its extension brings great evils: and ought to be opposed save when it can make a strong *prima facie* case for efficiency and economy.[25]

Other notes raised issues to be specifically addressed when writing on the future of industry. These included the international distribution of progressive industries among nations; the international spread of improvements; and the benefits from trade, including access to the products of mines and agriculture of new countries. Marshall stressed the problem of western European countries without natural resources in maintaining their comparative economic strength. This was to be achieved by fostering essential business qualities, especially innovative skills and ability of informed decision making, both chief factors in the production of material wealth. Marshall discussed the incentives required for economic progress in terms of wealth and the stimulus of success: 'Wealth, distinguished from a competency – is valued more for the power and distinction which it gives. Honours and prestige can give the same. This is the logical basis for heavy taxation of private wealth, proving the proceeds is [*sic.*] well spent'.[26]

How does this Marshallian conception of the future, economic progress, and ideals compare with Keynes' contemporaneous sketch for the study of the economic future of the world? Reproduction of its dozen lines facilitates comparison.

Essays on the Economic future of the world

1 Transitional character of the 19th century

2 Relative prices of agricultural and industrial products

3 Population

4 Climate v Race Patriotism

5 Present average wealth, and value of output

6 Importance of inequality to civilisation

Value of wealth to the individual

7 Prevention of great fortunes

8 Theoretical socialistic framework

9 Psychology of reward and incentive

10 Education, Eugenics and Quoei Soudri

(O'Donnell 1992: 806)

Although, as O'Donnell (1992: 779–80) convincingly points out, Keynes' outline for these essays drew on work on which he had been sporadically engaged both immediately before and after World War I, the similarity between part of the outline and some of Marshall's ideas is nevertheless striking. Examples of the former are Keynes' proposed introduction in terms of the transitional character of the nineteenth century, reminiscent of the opening pages of his *Economic Consequences of the Peace*. Population, the Malthusian spectre, and eugenics were likewise recurring themes in Keynes' writing of the early 1920s, though with prewar origins. Particularly interesting are their apparent roots in 1912 lecture notes dealing with factors influencing labour supply, which in itself carries a strong Marshallian flavour, given the attention Marshall had lavished on the topic in Books IV and VI of the *Principles*. The same can be especially said about topics 6 to 9 of Keynes' list, dealing with equality and inequality in progress broadly conceived,[27] the need to curtail great fortunes, the psychology of reward and incentives, and the need to examine a theoretical socialist framework in order to preserve its good, humanistic values while at the same time not eliminating some of the values of capitalism so essential to economic progress. Those values are abundantly present in Marshall's extant notes on economic progress and ideals, just as earlier, but in a more restrained way, they had been published in his last journal article on the 'Social Consequence of Economic Chivalry'.

Various inferences are possible on the basis of such broad similarities. To a large extent, they reflect the zeitgeist of those years, in which all thinking persons dwelled on the possibilities for progress in a future which the horrendous experience of the 'Great War' could only portray in the darkest colours, particularly when, with the peace terms imposed on Germany at Versailles, a recurrence of this catastrophe within a generation was highly feasible.[28] In addition, the spectre of socialism as a reality which the successful 1917 Bolshevik revolution imparted coloured all serious speculation on an economic future for the world at that time, both with respect to the survival of capitalism and the future of socialism. However, a Marshallian influence cannot be ruled out with reference to some of the specific ways Keynes posed the questions. Several aspects of the economic research agenda for the post-1919 future featured strongly in Marshall's papers, and even occasionally in published material.

## Political perspectives on a neoliberal tendency to socialism

Both Marshall's and Keynes' political positions can be, and have been, described as neoliberal with tendencies toward socialism (Clarke 1988;

McWilliams- Tullberg 1975; O'Donnell 1989). Although Keynes at least for part of his life (the 1920s) was actively politically committed to the liberal party, Marshall stayed clear of such formal commitments except on the fringes. Examples are his brief association with the Cambridge Reform Club in the early 1870s and, more enduringly, with the Cooperative Movement especially during the 1880s. The liberal creeds they adopted were those befitting their age and their class. However, their respective flirtations with notions of socialism and critiques of capitalism are the topics of interest here.

Marshall's tendency to socialism was unashamedly Millian and reformist. However, given the range of political opinion to which the term 'socialism' was then applied (the Christian socialism of Maurice, Hughes and Ludlow; the social critiques of William Morris; the Georgist movement of land taxation and land reform; Fabianism: and the Marxism of Hyndman's Social-Democratic Federation), a person with Marshall's political and social opinions could easily describe himself as a socialist.[29] The characteristics of that socialism are not difficult to document for Marshall. He expressed a measure of support for state enterprises and for what was called 'municipal socialism' at the turn of the century; for progressive tax and social welfare policies to redress social inequality and poverty; and for schemes of profit-sharing and cooperative enterprise as more satisfactory forms of working-class industrial organisation than that suggested by the 'new' and more militant trade unions of unskilled labour which had begun to flex their muscles from the late 1880s. Much of this platform was enunciated in Marshall's 'Social Possibilities of Economic Chivalry'. It was to have been reiterated and developed for the final volume on economic progress.

However, the degree of support Marshall believed he could offer to these socialistic policies was constrained by their adverse effects on incentives and efficiency, particularly the incentives to work, save, accumulate, and, above all, take risk. Public enterprise he saw in general as adverse to risk-taking, while the overall incentive to enterprise in such organisations tended to be very limited because this depended largely on the motivations that only ownership could provide. As shown in the previous section, the growing importance of joint stock companies mitigated this conclusion. Such large conglomerates also divorced management and enterprise from ownership, while their increasingly bureaucratic form reduced proclivities to risk-taking. Moreover, Marshall reacted strongly against the ambition of strong job expansion schemes in municipal enterprises, especially in public transport, because this entailed the same detrimental productivity effects from overmanning that he ascribed to what he called the 'make-work schemes' of new unionists in the engineering and other sectors of British manufacture.[30] The type of public endeavour Marshall most strongly supported was in town planning, education and the arts, and those activities not likely to be undertaken by private enterprise, either because of the collective benefits they bestowed or because they entailed health, sanitary, and humanitarian costs which private owners were not likely to meet. No broad appeals for nationalising the commanding heights of the British economy came from this Cambridge economist.

Marshall also supported fiscal measures at distribution. Although originally opposed to redistributive taxation with progressive rates because of adverse incentive effects on work and thrift, during the last decades of his life he admitted that such disincentive effects had been grossly overstated.[31] Such taxes were a useful social policy instrument, especially if their proceeds were satisfactorily spent. From an early age, Marshall also had progressive views on the policy of giving outdoor relief – the policy is so heavily criticised by the 1834 Poor Law because of its disincentive effects on self-help, thrift, and work – to assist unemployed workers and, more importantly, those destitute in sickness and old age, where he gave cautious support to the payment of age pensions ('Social Possibilities of Economic Chivalry', in Pigou 1925: 345–6). Universal assistance was decried for such reason, and because of its costs, including the excess burdens if such schemes were financed from general taxation.

Marshall's adherence to the principle of self-help as crucial to labour organisations – so visible in his support for 'old' trade unionism with its emphasis on voluntary, mutual assistance schemes, for profit sharing and for organising cooperative ventures in retail and other activities – needs little attention in this context. However, his critical perspectives on laissez-faire and on unrestrained competition (for example Marshall 1920: 6–10; Pigou 1925: 274–7) bear some reiteration. They can be summed up in his definition of laissez-faire as 'let the State be up and doing' (Pigou 1925: 336), implying that an active State is essential to regulate and control the mixed consequences of vigorous competition under free enterprise, thereby enabling it to sift out the detrimental from the desirable. Marshall's attitude to capitalism and free enterprise is comparable to that of a late twentieth-century social democrat: the state is required as regulator and as redistributor to remove the undesirable consequences from an economic and social system (competitive free enterprise) otherwise superior to any of the others that are known.[32]

Such sentiments are replicated in the projects Keynes was developing in the mid-1920s in his outlines for a 'Prolegomena to a New Socialism' and the associated project of a 'Critical Examination of Capitalism' (O'Donnell 1992: 781–93, 806–12). The thrust of the new socialism lay in the end of laissez-faire, the theme on which Keynes later published an essay (Keynes 1951: 312–22) which in fact was one of the few major published outcomes of these projects. It associated the individualism of laissez-faire with the 'technical superiority of small units in certain cases', possessive 'instincts of risk-taking … [and] of avarice and hoarding' and a 'criterion of profit' for which any new system should 'preserve opportunities'. These qualities gave it superiority over the state, but such 'alleged disadvantages of the State [became] equally disadvantages of the large scale entrepreneur using other people's money' under the joint stock system that separated ownership from control and developed general bureaucratic tendencies (cf. Keynes 1951: 314–15). The 'large' this brought with it for business organisation appeared therefore to the two Cambridge economists as not necessarily beautiful and efficient, an idea which Marshall had in fact partly adopted to deal with his so-called 'Cournot problem' of the possibility of increasing returns destroying effective business competition.

Keynes' prolegomena in its subsequent two parts intended to develop the philosophical foundations in order to explore the role of 'benevolence', the public good, and, more particularly, the means thereto in 'economic well-being'. It then planned to address the chief preoccupations of the state under six different heads: population, including eugenics; money;[33] enterprise issues lumped together as 'adequacy of saving, investment of fixed capital, public utilities'; labour matters lumped together, including 'wage levels, [employment and social] insurance, industrial disputes'; 'natural resources'; and, last, and an almost total inversion of the priorities in the classic treatment of the subject by Adam Smith, 'defence, peace' (O'Donnell 1992: 807).

Many of these indications of proposed content were directly inspired by Keynes' own interests at the time. Monetary reform and the need for 'a drastic remedy for unemployment' with its explicit rejection of 'the old principle of laissez faire' as passé for both the labour and capital markets (see Harrod 1951: 345–49) are clear examples. Much of the thrust of these arguments fits equally with some of Marshall's published and unpublished pronouncements on the matter. Of special relevance are his thoughts on the impact of developments in joint stock companies on the case against public enterprise and, more generally, the 'master's' recognised emphasis on the transitory nature of economic phenomena. The particular developments in joint stock companies mentioned were a striking example of this transitional quality, as was the general demise of laissez-faire in its traditional, late-Victorian meaning. Moreover, there was little in this list of proposed government responsibilities that Marshall could not have endorsed, with the possible exception of its perspectives on saving and fixed capital investment.

The first outline for a critical examination of capitalism, which O'Donnell (1992: 785–6) provisionally ascribes to November 1924, followed closely therefore on Marshall's death and in particular, Keynes' October visit to Mary Paley when he went through 'papers and things'. This, in my view, may explain the structure of 'ideal, actual and practicable' as a model for organising Keynes' views on the subject equally well as the appeal to Moore's ethical foundations made by O'Donnell (1992: 788). Justice in distribution with critical remarks on inheritance and, more pertinently, observations on the structure and purpose of an ideal society (Utopias) were important aspects of Marshall's outlines for his projected final volume which Keynes, when looking through Marshall's papers, could hardly have missed. Many of the themes to be raised by Keynes under 'the possible' had likewise gained the attention of Marshall in his prognostications on potential postwar developments in his *Industry and Trade*. These included reflections on state saving; alternative social organisations based on state socialism, guild socialism, and co-partnership; and the necessity of devising regulatory mechanisms for controlling public utilities and trusts. These seem good reasons to think that Keynes' project to critically examine the contemporary operations of capitalism had a strong Marshall pedigree, since this was part and parcel of the research programme which Marshall had laid out for himself in his study of economics, and which in fact had partially achieved in his *Industry and Trade* (cf. Keynes [1972: 228], whose reading of *Industry and Trade* is not inconsistent with this view).

Drawing such parallels is much easier than documenting the influences in question. The last need not be done. The point to be made is that in developing his own brand of liberal socialism, Keynes more than likely drew on the similar ideas of this subject that the 'master' had left to his 'pupils' and of which Keynes himself was clearly aware (Keynes 1972: 214). The two perspectives on politics by the two Cambridge economists resemble each other in some of their approaches to specific questions, and insofar as those of one is concerned, formed a substantial part of the roots of the other.

## Conclusion

A wider look at Marshall's influences on the system of thought developed by his most outstanding pupil may pay considerable dividends in the interpretation of Keynes' thought. In settling interpretative debates on the meaning of parts of *The General Theory*, as well as aspects of the economics of Keynes before that book, this is an increasingly recognised procedure. A closer look at the nature of the relationship between the two men aids this process, particularly if it includes the posthumous contact with Marshall's views which Keynes imposed on himself in the two years after Marshall's death. Misunderstanding of the extent of Marshall's influence on Keynes owes much to an inadequate grasp of this biographical aspect; it also arises from an inadequate perception of the thrust and objectives of Marshall's own enormous, albeit incomplete, opus. The *Principles*, and *Money Credit and Commerce*, and especially the monetary evidence, have received the focus of attention in the Marshall-Keynes relationship; if this article has convinced Keynes scholars that this may not be enough, it will have served its purpose in assisting our understanding of the thought of the greatest twentieth-century economist.

## Notes

1 This article draws on research financed by the Australian Research Council in connection with my Marshall biography, here gratefully acknowledged. I am indebted to the Faculty of Economics and Politics, University of Cambridge, for permission to quote from the Marshall Papers; to the Master and Scholars of Trinity College, Cambridge, for permission to draw on the Layton Papers; and to King's College archivists for assistance in giving me access to the Keynes Papers relating to Marshall and allowing me to quote from this material. Comments from participants at the Keynes Conference are gratefully acknowledged, as are those from Mark Blaug which rescued me from some embarrassing errors.

2 This section draws heavily on Groenewegen (1993).

3 On Mary Paley's account, Marshall's mental strength and memory began to deteriorate very sharply from 1921, making him virtually incapable of constructive work. This implies that much of *Money, Credit and Commerce* was based on his former work, edited by her, rather than on original rewriting.

4 That is, from 13 July when Marshall died until early (probably 4) September, or in less than two months. I intend to write more fully on the Keynes *Memoir* as Marshall biography for a book of Marshall essays to be edited by Marco Dardi, in a chapter provisionally titled 'Marshall Biography after Keynes' [below, Chapter 26].

5 Preserved at Trinity College, Cambridge, Layton Papers, Layton $15^6$.

6 The autobiographical remarks were noted by Layton as follows:

> Marshall intended to work at Maths and Physics under Stokes. Got on to metaphysics which he thought was the key to human life. Up at 5 in the morning to read Kant's *Critique*. Got on to ethics – as solving practical problems got to Economics. Returned to ethics to find out what were not Ethics or Economics. Found one set: How far is a man bound to express opinion that what others hold to [as] good for them to believe but [which are] untrue.
>
> (Layton Papers, Layton $15^6$: 25)

The essentials of this brief paragraph match Keynes' longer account in the *Memoir* (1972: 167–71).

7 Austin Robinson then recalled that beneath Keynes' 'Georgian skin there peeped out from time to time an almost Victorian sense of moral purpose and obligation'. Cf. Pollard 1994: 147.

8 As indicated in Layton's notes, for example, Layton $15^5$ (May 1905 term lectures on taxation).

9 Marshall offered to give Keynes some of these books if he had 'the space', so that they 'could come to you without waiting for my demise' (Marshall to Keynes, 30 May 1909).

10 The last were two hobby-horses of Marshall, particularly the first. See his 'Remedies for Fluctuations of General Prices' (1887) in Pigou 1925: 188–211, the *Official Papers* (for example, Marshall 1926: 11–12), and his correspondence with Irving Fisher (Pigou 1925: 474–8).

11 For a discussion of these curves, see Humphrey (1992) and an earlier working paper by Hennings (1979). The curves appeared in an appendix to editions of Rau from the fourth edition of 1841 onward, hence also in the fifth edition of 1845 which Marshall lent Keynes.

12 O'Donnell (1989: 186–8) indicates that Keynes' critical attitude to Pearson's statistical methods had been sparked off initially in the context of Keynes' work on probability and that, more specifically, it addressed the logical validity of the entailed 'induction' in these statistical exercises.

13 That is Pearson (1910), an annotated copy of which is preserved in the Marshall Library. The fact that Marshall alerted Keynes to its existence is indicated in Keynes to Marshall, 13 September 1910, in which Keynes thanked Marshall for lending him his copy of Pearson's pamphlet.

14 Marshall to Keynes, 2 November 1910; Marshall's third letter to *The Times*, published 19 August 1910, invited the public to adjudicate between him and Pearson from their published correspondence, but suggested also that in this context they should study Keynes' detailed reply in the *Statistical Journal*. It indicated that he 'had finished' his public participation. Mary Paley wrote to Keynes (21 September 1910) to ask him not to interrupt Marshall's holiday by involving him further in the Pearson controversy.

15 There are favourable references to eugenics in the *Principles* (e.g. Marshall 1920: 248, while pages 201–3 comment harshly on the selfishness of some middle-class parents

in not having children). Marshall wrote to Keynes (18 May 1911) congratulating him on the local Eugenics Society and promising to pay him a life composition membership fee as soon as possible. The fact that the Marshalls had no children is discussed at some length in my biography (Groenewegen 1995: ch. 8) without definite conclusions as to the reasons for this.

16 Keynes' reaction to Pigou's Marshall Memorial Lecture in October 1924 is given in a letter to Lydia (Hill and Keynes 1989: 241), which indicates Keynes' strong dislike of its sentimental stress on 'the feeblest side of Marshall' before saying 'that it was what we ought to admire'. Keynes' measured admiration for Marshall in the *Memoir* is discussed in the next paragraph.

17 Maynard Keynes was present at Marshall's funeral on 17 July, unlike his parents.

18 On 4 and 5 September 1924, Florence and John Neville Keynes congratulated their son on the *Memoir*, the latter praising son Maynard for his magnificent coordination of 'appreciation and criticism' and a completeness which, in his view, made a formal 'life' redundant because there was nothing 'really important' on the subject left to say. However, by 30 August, Edgeworth had seen proofs, and by 6 September, Edgeworth, who had probably invited Keynes to write the obituary in the first place, complimented him on the result as 'a great success … not a mere eulogium but a portraiture' (letters preserved in Keynes' Marshall File, King's College, Cambridge).

19 Sometimes too freely, by trying to improve the story with his own literary embellishments, as for example, in Keynes (1972: 161–2, 164–5, 169) dealing with Alfred Marshall's father, William, his Uncle Charles and Marshall's alleged missionary pretensions. Details are in my Marshall biography (Groenewegen 1995), but see also Coase (1984; 1990: esp. 20–4).

20 *Economic Journal*, 34 (136) December 1924, 627–37. Keynes' list benefited greatly from a list of Marshall's published writings made by Mary Paley Marshall (and preserved in the Marshall Library) and from the Marshall's scrapbook of newspaper cuttings, which included copies of most of Marshall's many letters to the press.

21 One such objective could have been looking through Marshall's books to select those unwanted by Mary Paley for library purposes. These visits also indicate the close rapport between Mary Paley Marshall and Maynard Keynes, which lasted for the whole of her life and which was undoubtedly far closer than her relationship with Pigou, the official literary executor of Marshall's will.

22 Marshall to Edgeworth, 28 March 1880 (British Library of Economics and Political Science, Collection Misc. 470, M469).

23 Marshall to Moore, 5 June 1912, 15 December 1921 (Columbia University Libraries, Ms Coll. H. L. Moore, Rare Book and Manuscript Library).

24 This was partly achieved in Pigou's *Memorials*, some of whose contents reprinted major Marshall essays on social progress he had published over his lifetime. Examples are Pigou (1925), item 2 on the future of the working classes; item 5 on housing the London poor, which resembled the later garden city proposals; item 10 on cooperation; and item 17 on the social possibilities of economic chivalry, Marshall's most outspoken platform for social policy and reform.

25 Marshall Library, Red Box 1 (5), 'Progress and Ideals', fragments dated early 1920s apart from the first, which is dated 7 April 1903.

26 Marshall Library, Red Box 1 (5), 'Progress and Ideals' fragments titled 'Book III – The Future of Industry', dated 23 July 1920. Several of the sentiments expressed in these fragments parallel those given in 'Social Possibilities of Economic Chivalry' (Pigou 1925: 323–46), which had first appeared in the *Economic Journal* in March 1907.

27 Thus Marshall pleaded specifically for inequality in work practices and distribution for artists and intellectual workers in order to enable them to use their scarce talents to the full, and thereby to make an essential contribution to civilised life to the maximum extent possible, a position already hinted at in the *Principles* (Marshall

1920: 70, n2 194–6, n1), the second of which also raises issues of race and climate in this context.

28 Alfred Marshall had himself speculated on this possibility in letters to Taussig (37 [*sic*.] March 1915) and Maynard Keynes (21 February 1915), both in Pigou 1925: 290 and 482 respectively.

29 We are told sometimes that everyone who strenuously endeavours to promote the social amelioration of the people is a Socialist – at all events, if he believes that much of this work can be better performed by the State than by individual effort. In this sense nearly every economist of the present generation is a Socialist. In this sense I was a Socialist before I knew anything of economics; and, indeed, it was my desire to know what was practicable in social reform by State and other agencies which led me to read Adam Smith and Mill, Marx and Lassalle forty years ago. I have since then been steadily growing a more convinced socialist in this sense of the word.

('Social Possibilities of Economic Chivalry' in Pigou 1925: 334)

30 Marshall to Edward Caird, 22 October 1897, 5 December 1897 (in Pigou 1925: 398–401), for example: 'Leisure is good, if it is well used. But the laborious laziness, which has come into many English government workshops, and some private ones, engenders a character to which leisure is useless' (401).

31 Marshall to Lord Reay, 12 November 1909, in Pigou (1925: 461–5: esp. 463).

32 Vaizey's 1976 perceptive comments that Marshall set far less store on the market-clearing properties of a competitive system than Pigou did is of relevance here. It should not be forgotten that Marshall's *Principles* (Book V, ch. 13) had explicitly criticised those who were drawing naive welfare implications from competitive equilibrium while Marshall was also very sceptical, particularly as compared with Pigou, about the ease with which government action could address the situation. Marshall's scattered comments on the subject of unemployment suggest also that he never entertained flexible wage solutions to this problem, except as a form of fantasy when exercising the mind in the realms of pure theory.

33 Obviously placed second because of Keynes' conclusions in *The Tract on Monetary Reform*, which he had completed the year before and which stressed the positive and important role of the state in securing price stability. As indicated earlier, Marshall had stressed the importance of price stability for facilitating good business decisions, and urged a government role therein in providing official price indices.

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# 26 Marshall biography after Keynes[1]

When Alfred Marshall died on 13 July 1924, Maynard Keynes was asked by his co-editor on the *Economic Journal*, Edgeworth, to write his official obituary, much to the pleasure of Marshall's widow. 'I am indeed glad that Maynard is writing it, for he will do it beautifully and Alfred was proud to count him among his pupils' (from a letter to Florence Keynes, cited in Harrod 1951: 354). On 30 August 1924, Edgeworth was busily correcting the galley proofs and making suggestions to Maynard Keynes about alterations. During September the article was finalised for publication in the issue of the *Economic Journal* immediately after Marshall's death, that for September. Edgeworth informed Harrod at the time that the September issue as a result was 'somewhat delayed', a delay amply justified by the quality of the piece (Harrod 1951: 354, n1). The extent of the delay is not easy to ascertain. However, it can be imperfectly estimated from the fact that Keynes did not receive a copy of the Memoir (as he referred to the piece) until the morning of 13 October 1924, promising his fiancée, Lydia Lopokova, to send her a copy immediately (Hill and Keynes 1989: 235). Whether this was a reference to copies of the *Economic Journal*'s September issue itself or to offprints from his article, is not clear. However, Keynes' exasperated, 'At last, this morning, the Marshall Memoir came' in the letter, suggests the former. The accompanying bibliography of Marshall's published writings was held over until the December issue, presumably for reasons of space.[2]

Prior to formal publication, Keynes had already heard much praise about his obituary from both his father, a long time intimate friend of Marshall, and from his co-editor, Edgeworth. The last wrote 'Your éloge appears to me to be a great success. It is not a mere eulogium but a portraiture'.[3] Maynard's father, John Neville Keynes, was even more laudatory: 'I have never known appreciation and criticism better combined … I presume no "life" will be attempted, there must be little really important to say beyond what you are putting in this article'.[4] Much other praise, as well as minor criticism, from those formerly acquainted with Marshall, followed during October and November 1924.[5] In particular, Keynes would have been flattered by the enthusiastic responses from two of his most literary Bloomsbury friends, Lytton Strachey and Virginia Woolf, the former explicitly appreciating Keynes' sketch as one of those modern pen portraits of eminent Victorians on which his own claim to literary fame largely rested.[6]

There can be absolutely no doubt that Keynes' obituary sketch of Marshall is a brilliant piece of writing and one, moreover, which has stood the test of time as a magnificent critical appreciation of the great nineteenth-century economist placed accurately within his Cambridge background. Such praise is not really diminished by the additional remark that Keynes' piece exhibits a number of serious errors. In writing it, Keynes committed important sins of both omission and commission, some of them wittingly. These are enough to nullify his father's proud judgement that the Memoir eliminated the need for a 'life' of Marshall. Biographical research on Marshall over the seventy years since Marshall's death clearly demonstrates the serious implications of some of these errors for a better understanding of Marshall's life and work and, more importantly, indicates that Marshall's life and activities had a richness which made it impossible to encompass it accurately and fairly within the confines of an – admittedly long – journal article. What is surprising is that it has taken over seventy years for a full-length biography of Marshall to appear.[7]

In what follows, this paper examines the sources of Keynes' Memoir and the circumstances, so far as they can be known, in which it was constructed. It then identifies the errors in its contents in the light of subsequent biographical work, before reiterating in a final section the need for a full-length biography as an aid to better understanding of Marshall's work. The broad underlying theme of the paper is emphasis on the need for accurate and detailed biography of important literary persons, if only to ensure a better interpretation of their work from a fuller understanding of its context. More specifically, it illustrates the importance of detailed biography for the evaluation and comprehension of the work of major economists.

## I

Relatively little is known about the writing of the Marshall Memoir.[8] When Marshall died, Keynes was at Tilton, the place where he seems to have spent much time while the Memoir was being written. During August there were also brief trips to London, to see about Lydia Lopokova's divorce and for other reasons, including much business. On 1 August Keynes wrote to Lydia from 46 Gordon Square, Bloomsbury, 'I've had much to do here, what with selling King's College land, speculations, the *Nation*, copies of my Oxford Lecture,[9] and letters for Miss Rees [Keynes' then recently acquired secretary]' (Hill and Keynes 1989: 229). From this it appears that the Marshall Memoir was never a full-time occupation for Keynes during the period after Marshall's death when it was in preparation, but that the decks may have been cleared for the task in a hectic round of activity in late July.

The only Keynes letter about *writing* the Memoir is dated exactly a week after Marshall's death, Sunday 20 July 1924. In the evening, Keynes wrote to Lydia Lopokova, 'I am just back in my rooms [at King's College] after speaking for three hours and a half with my old master's wife [Mary Paley Marshall] and gathering from her materials for my memoir. I must see her again tomorrow afternoon' (Hill and Keynes 1989: 227–8). Keynes' appointment book for 1 September 1924 indicates a further meeting at Tilton with Mary Paley Marshall. Her visit there was probably to look over parts of the galley proofs of the Memoir which, as mentioned earlier, Edgeworth had been correcting two days before on 30 August. All other evidence about writing the Memoir has to be inferred from the internal evidence of the Memoir itself, and from correspondence kept within the Marshall file among the Keynes Papers.

The opening footnote of the Memoir indicates the significant role Mary Paley Marshall had in its writing:

> In the preparation of this memoir (August 1924) I had great assistance from Mrs. Marshall. I have to thank her for placing at my disposal a number of papers and for writing out some personal notes from which I have quoted freely. Alfred Marshall himself left in writing several autobiographical scraps, of which I have made the best use I could.
>
> (Keynes 1972: 161, n1. The 'August 1924' in brackets is not in the original *Economic Journal* version)

In addition, Keynes' Marshall file contains three letters from Mary Paley Marshall (dated 26, 30 July, 5 August 1924) designed to assist Keynes in the writing of the Memoir. The first of these refers to Alfred Marshall's great-great-grandfather, William Marshall, the strong man from Devon (Keynes 1972: 161–2, n3); the second accompanied the notes on Marshall she had prepared for Keynes over the days following his visits on 20 and 21 July; while the third quotes a letter from J. R. Mozley in which the last informed her that he had met Marshall first at Clifton College in 1865 and that in 1867 he had gone mountaineering with him in Switzerland. Mozley therefore introduced Marshall to this activity which Marshall pursued until his marriage in 1877.[10] The fact that Keynes did not receive Mary Paley Marshall's notes until right at the end of July, together with the first footnote in the Memoir, indicates that writing of the Memoir probably did not start until August so that, on the evidence, the construction of the sixty-three-page article was largely completed within that month. Its polishing took place during early September.

As indicated in the previous paragraph, the extent of Mary Paley Marshall's assistance occurred at three levels. First, she selected, or assisted Keynes in selecting, a number of Marshall's papers, useful to a potential biographer. The autobiographical fragments which Marshall had written during the last ten years of his life, as well as his entry for a German project of a reference book on eminent men of science, would have been amongst them.[11] More generally, the items included the following: Marshall's early paper on money written circa 1870–1 (Keynes 1972: 190–2, and now reproduced in Whitaker 1975: I, 164–76);[12] 'Historical 1882, On Way Home from Sicily 1882' and 'General Work since Arrival at Cambridge 1885–89' (Keynes 1972: 202–3, 216;

reproduced in Whitaker 1975: I, 85–6, 87–8); the testimonials written by Bateson, Sidgwick and Jevons in support of Marshall's application for the position of Principal at Bristol (Keynes 1972: 164, n2, 188, n4, reproduced in Whitaker 1996: I, 354–9); a letter from America by Marshall to his mother (Keynes 1972: 176); and a letter by Marshall to a Japanese translator of *Economics of Industry* in 1916 who wrongly gave the date as 1910 (Keynes 1972: 201, in Whitaker 1996: III, 335). Keynes was also certainly given access to the Marshall's scrapbook, which included hundreds of clippings from newspapers such as Marshall's own letters to the press, reviews of his books, press reports of meetings which Marshall had chaired or attended, and of lectures he had given at Bristol. The last included the lecture on American industry, the lecture on water as national wealth and the three lectures on *Progress and Poverty* (Henry George). It is more than likely that Mary Paley Marshall also prepared the basis for Keynes' bibliography of Marshall's works; in any case, there is a list in her handwriting of such works among the Marshall papers compiled from the scrapbook and other sources. For reasons indicated elsewhere (Groenewegen 1993), whether Keynes went through the Marshall papers himself during his lengthy visits to Mary Paley Marshall in July[13] is a matter of some interest in assessing the extent of the influence of the 'master' on his most gifted pupil.

The notes on her husband's life Mary Paley Marshall wrote for Keynes provided the most valuable assistance she gave him while writing his Memoir.[14] Their contents cover much of Marshall's life, especially aspects of his childhood and schooling, his parents, his ancestry, his Uncle Charles and Aunt Louisa, his outdoor work habits and travel as a young fellow, his brief period at Clifton College and the friends he made there and at university, as well as the societies he had joined as a recent graduate,[15] and the Bristol period, while they concluded with transcriptions of some of Marshall's thoughts in old age on future life and other subjects which she appears to have recorded from 1920 onwards (quoted in Groenewegen 1995: 737–8). Their special focus on Marshall's early life (up to his return to Cambridge in early 1885) and on Marshall's final years may have been at the specific request of Keynes, since these were the periods of that life for which known sources of information were quite inadequate. As acknowledged in the opening footnote of the Memoir, Keynes quoted freely from Mary Paley Marshall's notes. This was done either by using them to fill in missing details (e.g. Keynes 1972: 161–2, 162–5, 165–6, 174, 177–8, 200, 217, 229–30) or else to tell the essentials of a phase of Marshall's life in a poignant quote (e.g. Keynes 1972: 175, 202, n3, n4, 215, 217). Her notes and her stories in this way coloured much of the Memoir, inspiring liveliness and detail in the adroit manner in which Keynes managed to turn her facts to good account in sometimes unexpected places (Keynes 1972: 213, n3 on Marshall's attitude to servants; 214 on his treatment of dinner guests).

The third way in which Mary Paley Marshall assisted Keynes was through private correspondence. This either added to her notes or to her earlier conversations with Keynes. Some of these letters have already been mentioned. They include one on the Reverend William Marshall, 'the strong man of Devon', a subject on which she elucidated in her notes for Keynes four days later,[16] and one on Marshall's friendship with J. R. Mozley.[17] She seems also to have been involved in reading, and commenting on, the galley proofs in early September, probably the reason for her Tilton visit. This resulted in a letter complaining about Keynes' remarks on aspects of Balliol Croft and Marshall's treatment of servants.

> Alfred was *most* careful about the comfort of the servants. The kitchen [at Balliol Croft] was fitted up with an easy chair and a couch and looked like a sitting room … Alfred designed the fittings themselves after a ship's cabin. Our friends [especially Benjamin Jowett] used to sit and have a chat with Sarah [the Marshalls' maid since Bristol] in the kitchen and often said it was the most comfortable room in the house.[18]

Mary Paley's delight with the Memoir was expressed on many occasions. On 16 November 1924 she wrote to Keynes,

> I cannot tell you what a delight and interest your Memoir has been to me all along both in its making and its completion. I have read it many times and each time it seems to me better than before. I shall always be grateful to you for it, and for the immense trouble you have taken.[19]

Four days later she returned to the topic of Marshall, sending Keynes some verses, 'the only ones which Alfred ever made', and apologising for leading Keynes astray on Marshall's nickname at school, 'Tallow Candles' (cf. Keynes 1972: 163, editorial note 1). Later correspondence raised issues about Marshall's family, which had been one of the more troublesome missing areas of information for Keynes' writing.[20]

After Mary Paley Marshall, Keynes' most important informants on Marshall were his parents, together with Edgeworth. Keynes' mother abstracted entries dealing with Marshall from his father's diaries, abstracts preserved in Keynes' Marshall file. The first use Keynes made of them is in connection with Marshall's marriage plans and prospective loss of his fellowship income when, 'for a week or so', Marshall apparently entertained the thought of becoming Cambridge University's Esquire Bedell (Keynes 1972: 177, n1; John Neville Keynes' diaries, entries for 20 and 25 April 1877; the quote Keynes used comes from the second entry but the 'week or so' mentioned in the context seems a typical Maynard Keynes exaggeration to colour the story). The next substantial quote from the diaries occurs in the context of Marshall's foreign trade manuscript of the early 1870s (Keynes 1972: 188, n4; the whole of this manuscript is reproduced in Whitaker 1975: II, 7–236). The tale of Marshall's habit of entertaining working-class leaders at Balliol Croft also owes something to the diaries (Keynes 1972: 214),[21] as does the account of Marshall's efforts in establishing the economics and politics tripos (Keynes 1972: 222–3, n2). Perhaps the remark about Jowett's 'umbrage' at Marshall's appellation of Cambridge as 'the great mother of strong men' (Keynes 1972: 224, n2)[22] comes also from this source. Most interesting are Maynard Keynes' own recollections of his father's 'sad complaints … of Marshall's obstinate refusal to understand where his special strength and weakness really lay, and of how his unrealisable ambitions stood in the way of giving the world the true treasures of his mind and genius' (Keynes 1972: 199).[23]

Edgeworth, another old friend and colleague of Marshall, provided notes on the significance of the *Principles*, the first edition of which he had twice reviewed (Keynes 1972: 205–10). Edgeworth also suggested censorship of a reference to paternal 'slipper discipline', allegedly practised by Marshall's father on his younger brothers as well as on his own children. With the apparent encouragement of Mary Paley Marshall, it was therefore removed from the final version, to the chagrin of Marshall's nephew, Claude Guillebaud and, later, of Ronald Coase (1984; 1994: 123–5).

Keynes also drew on two of his own Cambridge contemporaries for information relating to Marshall. Ralph Hawtrey provided a brief genealogical table linking the Marshall family to the Hawtreys via Marshall's great-great-grandfather, John Marshall, who had married Mary Hawtrey. When recording this, Keynes (1972: 162, n2) noted 'Thus Alfred Marshall was third cousin once removed to Ralph Hawtrey, author of *Currency and Credit*. A. M. drew more from the subtle Hawtreys than from the Reverend Hercules' [that is, his great-great-great grandfather William, the parson from Devon].[24] Clapham was also helpful as well as frank. In his assessment of Marshall as economic historian, he described Marshall as 'no historian' at all, but saw him as having mastered the literature of the subject 'as it was known thirty years ago' and better informed on the seventeenth to nineteenth centuries than Cunningham was. However, Clapham 'liked old Archdeacon Bill better than I liked Marshall, tho' Marshall was the better man'. In addition, Clapham told a story of Marshall's keen judgement of students, perhaps gained when he served as Marshall's paid marker of student essays in succession to McTaggart (Groenewegen 1995: 676, n*). Keynes (1972: 224) reproduced this anecdote *in toto*.[25]

Keynes' major personal sources appear to have been confined to the above.[26] He also used the printed word extensively. Apart from drawing on a substantial selection of Marshall's published writing,[27] he used the *Henry Sidgwick Memoir* to good effect (Keynes 1972: 166, n2, 167, n1, 168, n1, 219, 221, n3), a book he had first enjoyed reading when it appeared in 1906 (Harrod 1951: 115–17). A number of other books were less frequently cited.[28] The greater part of the Memoir, however, relied on oral history, even if transcribed in the form of letters and notes. This included what he himself had been able to extract from Marshall during his last visit to the 'master' in May 1924 (Hill and Keynes 1989: 195; Keynes 1972: 172, n2).[29]

Although there were other obituaries, as well as the reminiscences by former colleagues Edgeworth, Fay, Benians and Pigou which appeared in the *Memorials of Alfred Marshall*, Keynes' Memoir was, and is, the major account of Marshall's life written by someone who had known him personally. However, Keynes only encountered the mature Marshall (already in his forties when Maynard was a child, and in his sixties when Maynard was his student). This applies equally to the others who left personal reminiscences, though in varying degrees. Even Edgeworth cannot have met Marshall in the flesh until after 1880, the year when Marshall turned thirty-six. The exceptions are persons who recalled him from his Bristol days.[30] The young Marshall is therefore biographically absent. He has to be put together from Mary Paley Marshall's recollections,[31] recalling that she herself did not meet him until he was in his early thirties, from Mozley's rather brief recollections and, more generally, from the relatively few surviving remnants of the written record. Like his photographs (see Groenewegen 1995: 768–9), the published biographical pictures of Marshall (including the star performance by Maynard Keynes) by those personally acquainted with him are virtually all based on the man in his fifties or sixties. Post-Keynes biographical research, insofar as that is possible, has opened up this vacuum in particular, thereby at least partly correcting the false impressions such partial acquaintance can convey. This is only one of the reasons why Keynes' Memoir cannot stand as a substitute biography for Marshall.

## II

Careful readers of Keynes' Memoir will have noted that Marshall's first eight years and his ancestry are covered in its two opening paragraphs, with the only references to family being confined to father, mother's name, great-great-grandfather and his third wife, great-grandfather, a great-great-uncle, one uncle and one aunt. His school life at Merchant Taylors' School of nine years duration also gets two paragraphs; by contrast, his ten terms as Cambridge undergraduate barely get two sentences, so that Keynes' Memoir effectively begins with Alfred Marshall, B.A., second wrangler and Fellow at St John's, *aet* 21–22, late 1865. The sins of omission are therefore very great, particularly for someone like Keynes, active in the Eugenics movement, who tended to rely in his biographical essays on the consequences of 'mighty heredity' (Keynes 1972: 162). Apart from that, his account of the young Marshall, covering the first quarter of his life, has some sins of commission, designed to give a particular slant to the formation of Marshall's character.

With respect to ancestry and family, Keynes' picture has been filled out considerably. Coase (1994) has discovered much about Marshall's father and mother, corrected Marshall's designated birthplace from Clapham to Bermondsey, and delved deep into Marshall's ancestry and the Antipodean activities of his Uncle Charles (Coase 1994). As a result, Marshall now has a mother and father about whom considerably more is known than their names, two brothers and two sisters, two of whom married and had children, giving Marshall seven nephews and nieces on the Marshall family's side; four uncles and one aunt on his mother's side, and the same on his father's side, creating dozens of cousins; and the usual complement of four grandparents, all of whom had died before Marshall was born in 1842. Only by the time of his paternal grandfather's generation can clerical ancestors be found; *direct* clerical ancestry comes not until great-grandfather John and a great-great-grandfather William mentioned in Keynes' Memoir. As Coase (1994) emphasised, Keynes' clerical ancestry bestowed on Marshall completely neglects the business-financial background of Marshall's paternal grandmother's family, the Bentals. The Bentals secured Marshall's father's Bank of England career (for what it was, see Groenewegen 1995: 21–2, 23–4) and would also have enabled Marshall to claim kinship with Henry Thornton, the author of the *Nature and Effect of the Paper Credit of Great Britain*, as well as with the 'subtle Hawtreys' and the author of *Currency and Credit*. Moreover, Marshall's family numbered as many military men and businessmen as clerics, including some spectacular business failures on the part of his paternal grandfather (whom Keynes omitted from his account though he was briefly mentioned in Mary Paley's notes). This gives a different twist to 'mighty heredity' for those who believe in it. Marshall's mother's family was also in business, but on a much humbler scale. It included butchers, couriers, small farmers, an innkeeper and even some agricultural labourers.

None of this is terribly important for non-Galtonian biographers, except that Keynes used his very incomplete and sometimes wrong picture of Marshall's family and ancestry to steer his biographical account into misleading directions. The first relates to the picture Keynes drew of Marshall's father, a case study in fact of Keynes' clever use of innuendo[32] and fiction when facts were not available. Although softened with respect to 'slipper discipline' for reasons already stated, it attributed to him a fictitious tract, *Man's Rights and Woman's Duties*. This enabled an easy explanation of what Keynes called Marshall's 'implanted masterfulness towards womankind'[33] and thereby his strong public stand at Cambridge against the granting of degrees to women. More important is Keynes' insertion of a story about Marshall's vocation for the church, slipped in between a brief discussion of his friendships as a graduate made both at Clifton College in 1865 and subsequently at the Grote Club, and designed to prepare the way for Keynes' account of how Marshall moved from mathematics via metaphysics, ethics and psychology to economics.

> In Marshall's undergraduate days at Cambridge a preference for Mathematics over Classics had not interfered with the integrity of his early religious beliefs. *He still looked forward to ordination, and his zeal directed itself at times towards the field of foreign missions.*
>
> (Keynes 1972: 167, my italics)

There is absolutely no basis for this assertion in any of the material provided by Mary Paley Marshall (including Marshall's own autobiographical fragments). Plausibility of the story relies on the link between Merchant Taylors' and St John's College, Oxford, a link predicated on a subsequent ecclesiastical career. Significantly, this picture of Marshall's initial career choice is not attributed by Keynes to any specific source. The story of the religious vocation is of course crucial to Keynes' views about Marshall's dual nature in his approach to economics: the scientist and the preacher, which makes its appearance at important stages of Keynes' account (Keynes 1972: 173–4, 200–1; and for a detailed critique, Groenewegen 1995: 57–63).

Although Keynes' account of Marshall's road to economics is correct as far as it goes, two aspects of it need further mention. It is doubtful that Marshall ever seriously intended to undertake postgraduate studies in physics on completing the mathematical tripos, although at one stage he claimed so in lectures which Keynes may have attended (see Groenewegen 1995: 98, cf. 93–4, 126). Second, Keynes' discussion in the Memoir (Keynes 1972: 167, 170–1) is brief relative to what is now known about his philosophical and psychological studies during the late 1860s, largely through the painstaking work of Raffaelli (1991–2; 1994; see Groenewegen 1995: ch. 5). These blemishes in Keynes' Memoir are of a different order to that mentioned in the previous paragraph. They arise from a tendency to mislead in some of Marshall's autobiography presented late in his life (of which Keynes in this case was the victim)[34] and from an important burst of Marshall studies concentrating on this hitherto neglected aspect of his life.

Much of post-Keynes biographical research on Alfred Marshall[35] in fact corrects aspects of his life which Keynes for reasons of time or space could not systematically cover. There are a great many important instances of this. John Whitaker (1975) has significantly widened our knowledge of Marshall's economic apprenticeship by his two-volume edition of the early economic writings and, in particular, in its general introduction, which in over a hundred pages chronicles in considerable detail Marshall's tortuous road to the *Principles* as student of economics. Earlier, Whitaker (1972; 1982) had equally carefully told the story of Marshall's academic life between Cambridge (1877–85), covering his post-marriage exile at Bristol and Oxford, particularly with reference to his role as teacher over these years. However, this focused essay in biography also discusses Marshall's important friendship with Jowett, his administrative burdens as Principal of a new University College, his first presentation of evidence to an official inquiry, his participation in public lectures,[36] and his work at writing during the period which Marshall later described as 'barren years' plagued with an illness contracted in 1879. It ignores the pleasant interlude of sick leave spent in Sicily, Italy, the Bavarian lakes and at the British seaside from October 1881 to October 1882.[37]

Although Keynes (1972: 201–2) discussed the Marshalls' *Economics of Industry* in some detail, with special emphasis on its 'suppression' by Marshall, further research has done much to illuminate the nature of the partnership involved in its writing and the reasons for its suppression (Whitaker 1975: I, 70–81; Becattini 1974: ci–cxi; McWilliams-Tullberg 1992: 257–70; Groenewegen 1995: 176–9, 250–5). The same can be said about many of the other activities which Keynes could only cover briefly. These include Marshall's work on royal commissions and other government inquiries, especially that involved with his appointment to the Labour Commission (Keynes 1972:

217–18);[38] his role in founding the British Economic Association (now the Royal Economic Society); his participation in the debate over degrees for women at Cambridge University and in the creation of an economics and politics tripos (Keynes 1972: 218–23);[39] and the writing and publication of his last books (Keynes 1972: 227–31).[40] Post-Keynes biographical work has largely added to, rather than corrected, the brief pictures Keynes presented of these matters.

The discovery of much previously unpublished Marshall correspondence on various topics has likewise greatly enriched knowledge of the person and his work well beyond what was presented in the useful, but limited, anthology of letters selected and edited by Pigou in the *Memorials*. The fewer than a hundred letters included in that source present less than 10 per cent of the total correspondence which has been gathered together by John Whitaker. For example, *Memorials* omits Marshall's 1875 letters to his mother written from North America, and all letters from his three major correspondents, John Neville Keynes, Herbert Somerton Foxwell and Frederick Macmillan. Only its Marshall bibliography points to Marshall's substantial correspondence to the press. Some of this is reflected in Keynes' Memoir, particularly with respect to the First World War (Keynes 1972: 226–7). A substantial edition of Marshall's correspondence and associated documents (Whitaker 1996) provides an enormous database for filling out many, often not otherwise very apparent, aspects of Marshall's long life.

Some further corrections of Keynes' Memoir remain to be made. One relates to Keynes' belief (Keynes 1972: 184, n1) that 'Marshall only wrote two reviews in the whole of his life', that of Jevons' *Theory of Political Economy* in 1872 and of Edgeworth's *Mathematical Psychics* in 1881. Whitaker (1994) has now shown that there is a third review, published in 1874 and likewise in the *Academy*. It dealt with Jevons' 'The Progress of the Mathematical Theory of Political Economy', was unsigned but can unequivocally be attributed to Marshall on the basis of a letter to Foxwell (4 February 1875). A second issue for correction is the claims made on Marshall's behalf by Keynes (and by Edgeworth) with respect to his contributions to monetary theory and policy and, more generally, economics (Keynes 1972: 191–5, 205–10). Thus Laidler (1990: esp. 60, 61) has questioned Keynes' claim of Marshall's priority over Fisher with respect to the real/nominal interest rates distinction, while Keynes' statement (1972: 205) that Marshall's analysis of demand and cost of production left 'nothing more to be said' would not have commanded general agreement even in 1924 when it was written. This type of correction enters issues of interpreting Marshall's economics, thereby falling outside the essentially biographical scope of this paper. An important omission, but understandably so at the time it was written, is Keynes' failure to mention the controversial succession of Pigou to Marshall's Cambridge chair (discussed in Coats 1968a; 1972; Coase 1972; Jones 1978; Groenewegen 1995: 622–7).

The above captures the greater part of the various contributions to Marshall biography after Keynes, doing so within the context of its relation to Keynes'

Memoir. As an overall picture of the man and his life, that Memoir's contents still remain of great value. Exceptions are the matters already outlined, largely associated with Marshall's ancestry, family and his first twenty-three years, and the fact it was constructed on the impressions conveyed to his biographer by its subject in mature and old age. Needless to say, many of Keynes' very impressionistic sketches of Marshall's later activities need filling out in order to give them their due weight. Others, ignored by him, need attention. This filling in of the gaps is particularly necessary given the enormous change of institutional background and social milieu in the post-1945 era from the late-Victorian and Edwardian environment which Keynes shared with the vast majority of his 1924 readers. As a permanent life, the Memoir could never have stood, if only for this reason arising from the mere passage of time and the changes this imposes. Its factual flaws make that status of permanence as a biographical account even more problematic, as did the constraints its purpose as official obituary imposed on its writer, combined with the pressures exerted on its writing by Marshall's close friends and acquaintances still living.

## III

What other conclusions emerge from this account of biographical research on Marshall after Keynes? First, the magnitude of some parts of the research task needs to be mentioned. Although the names of the persons actively involved in this research during the last half century are easily counted on the fingers of two hands (with fingers to spare) the time and energy invested in that research has been immense, not to mention the amount of research funding. This is especially the case with the extensive ancestry research undertaken by Coase.[41] Gathering and editing the Marshall correspondence has taken up several decades of Whitaker's life. My own biography (Groenewegen 1995) was started in 1984 and took two and a half years (more or less full time) to write up in first substantive draft. The question may well be asked: is it worth it?

The value of the economist's biography for scientific purposes has been a controversial issue. Examples of misuse of biography in interpretation of thought are not too difficult to find. Yet in the case of most economists whose biography has been written, their life illuminates their writings. Whether it is a short life, such as Polkinghorn's life of Jane Marcet (Polkinghorn 1993) or a three-volume work such as Skidelsky's Keynes, the reader's insight into the texts the subjects of such biographies produced is enhanced by absorbing the background of the lives of their authors. That influence of background comes from the trivial as well as the more profound. To take an illustration from the subject at hand: the autobiographical content of the *Principles of Economics* in its choice of examples and qualifications, is surprisingly extensive once you know more of the detail of Marshall's long life.

Providing background is not the only role of the economist's biography. A good study of the life of an economist can remove myths about their work which have accumulated over time. The biographer of Marshall can dispel many myths. The myth of Marshall as the author of a single book, the *Principles of Economics*, is only one of these; particularly if that myth incorporates the false belief that the final edition is the definitive version of that work. Marshall's work is short-changed and its value diminished from such a narrow perspective. Marshall the neoclassical is another myth, unless viewed in the sense in which Veblen, who conceived the term, intended to apply it. But even then, it is dangerous to draw lines of continuity from the system that Marshall constructed (if only in part, since he never finished what he wanted to achieve) to the practices of the present or, for that matter, some of the practices in economic theorising conducted in his name in the Cambridge of the 1920s and 1930s. Marshall, the founder of the basic tools of modern micro-economics, is also a convenient myth. It obfuscates the fact that the invention of micro-economics *as a subset* of work in the discipline occurred well after his death, thereby effectively hiding the fact that his economics blends what are now called micro- *and* macro-considerations. Moreover, it neglects the stress Marshall placed on the interdependence of all parts of his subject and its links with many of the social sciences. The last is particularly illustrated by his educational practice as university teacher and as syllabus reformer. The overview of a person's work which a biography tends to give corrects such misconceptions of that work which gradually accumulate.

Given Marshall's immense status in the history of economics, the corrective value of a study of his life and ambitions, his work finished and unfinished, and the environment which shaped it, becomes all the more important. He was a man of many seasons, never simple or straightforward, but complex in his behaviour and writing and invariably stressing the intricate nature of economics. Methodologically, he continues to have much to offer, even if what he wished to achieve was scarcely realised because of its ambitious scope. The re-reading of persons' work, encouraged by the reading of good biography of them, may be another desirable by-product inducing better interpretation. If the upsurge of Marshall studies from the centenary commemoration of the *Principles* continues, and interest in Marshall as an economist still with something to say to contemporary economists spreads further, then a full grasp of his life is important. It is for this that Marshall biographers after Keynes have laboured, and continue to work.

## Notes

1 In writing this paper, I have drawn freely on the contents of Keynes' Marshall file (KMF hereafter) housed with the Keynes Papers at King's College, Cambridge. I have also used material housed in the Marshall Archive, Marshall Library of Economics. Permission to quote from this material is gratefully acknowledged. I am grateful to Don Moggridge for advice on the writing of the Memoir.

2 F. Y. Edgeworth to Maynard Keynes, 30 August 1924. The obituary appeared in *Economic Journal*, 34 (135) September 1924, 311–72; the bibliography in *Economic Journal* 34 (136) December 1924, 627–37. Keynes' Memoir, with a number of emendations, was subsequently reprinted in A. C. Pigou (ed.) *Memorials of Alfred Marshall*, London: Macmillan, 1925, 1–65; included in Keynes' *Essays in Biography*, London:

Rupert Hart-Davies, 1933; and in *The Collected Writings of John Maynard Keynes*, ed. D. E. Moggridge, vol. X, London: Macmillan, 1972, the version which is used in this paper.

3 F. Y. Edgeworth to Maynard Keynes, 6 September 1924 (KMF).

4 John Neville Keynes to Maynard Keynes, 5 September 1924 (KMF).

5 Reactions and a comment that Keynes had underestimated Spencer's philosophical influence on Marshall came from J. R. Mozley, an early university friend of Marshall, and a former member of the Grote Club in the late 1860s. Praise came from Claude Guillebaud, Marshall's nephew and fellow Johnian; Florence and John Neville Keynes, Maynard's parents; C. R. Fay, a former student of Marshall and one-time Cambridge lecturer; Asquith, the former Prime Minister and a person who occasionally had met the Marshalls at Oxford; Roderick K. Clark, a student of Marshall; Dora Sanger, a former Marshall student and wife of C. P. Sanger, one of Marshall's favourite students; H. S. Foxwell, Marshall's long-time colleague and friend, until he broke with Marshall over the appointment of Pigou as Marshall's successor; R. F. Scott, the Master of St John's College; W. R. Sorley, the Professor of Moral Philosophy as successor to Sidgwick and former colleague and student of Marshall; A. C. Stenson, the Master of Magdalen College; H. S. Jevons, son of W. S. Jevons and an academic economist and acquaintance of Marshall; and see below, note 6.

6 Lytton Strachey to Maynard Keynes, 21 October 1924 (in Michael Holroyd, *Lytton Strachey: A Biography*, London: Penguin, 1979, 900, n23); Lydia Lopokova to Maynard Keynes, 30 October 1924: 'Virginia [Woolf] asked me to tell you how much she admired your Marshall' (in *Lydia and Maynard*, eds Polly Hill and Richard Keynes, London: Andre Deutsch, 1989: 243). Lytton Strachey's *Eminent Victorians* had appeared in 1918 with its sketches of Cardinal Manning, Florence Nightingale, Thomas Arnold and Gordon of Khartoum, and caused a literary sensation from their biographical innovativeness and general tone.

7 That is, P. D. Groenewegen, *A Soaring Eagle: Alfred Marshall, 1842–1924*, Aldershot: Edward Elgar.

8 Confirmed for me by a letter from Don Moggridge (13 February 1991), who indicates that correspondence with Lydia, Keynes' appointment book and internal evidence from within the Memoir itself are the only sources in the Keynes Papers on the subject, apart from Keynes' Marshall File.

9 That is, the Oxford Lecture given in late 1924, at the invitation of the Sidney Ball Foundation. It was entitled *The End of Laissez Faire* (Harrod 1951: 354–5).

10 See Groenewegen (1995: chart 2.1, 105–6, 191, 661–2), on Marshall's friendship with J. R. Mozley.

11 The last, under the heading '"Eckstein", Alfred Marshall, Professor of Political Economy' is reproduced in Wood (1982: I, 148–51). Keynes (1972: 177, 181–2) quoted extensively from it, as he did from the autobiographical fragments, some of which Mary Paley Marshall had rescued from the waste paper basket (Keynes 1972: 165, 171, 200–1, 230).

12 Keynes may have been alerted to this piece by Mary Paley Marshall in her letters to him while Marshall was working on *Money, Credit and Commerce* during the summer of 1922, in particular the letter of 31 July 1922 from Sea Vale, East Dorset, where she told Keynes that some of the material in *Money, Credit and Commerce* 'is about 50 years old' (KMF).

13 That is, three and a half hours on 20 July, during his visit on 21 July and subsequently, on 5 December 1924 when, as Keynes wrote to Lydia Lopokova, she gave 'me various manuscript scraps of A. M.[arshall], which I am glad to have – she has a passion to get rid of everything she possibly can' (Maynard Keynes to Lydia Lopokova, 5 December 1924, in Hill and Keynes 1989: 168). Some of these 'scraps' may have come back to the Marshall Library on the death of Keynes, but some of them are undoubtedly retained among his papers.

14 Preserved in KMF. They remain exceedingly useful to the Marshall biographer, since they contain some items of information which Keynes did not use in his Memoir and, on other occasions, enable corrections of his more colourful interpretations of the information in the notes.
15 The last contain some of the few errors in Mary Paley Marshall's account. Her remark that Sidgwick, Venn, Fawcett and Clifford were members of the Eranus Society is not borne out by the evidence (Groenewegen 1995: 112–13) and was partly corrected by Keynes, who substituted Jackson's name for Clifford (Keynes 1972: 174) on the basis of Sidgwick's recollections of the Club.
16 Mary Paley Marshall to Maynard Keynes, 26 July and 30 July 1924 (KMF); Keynes (1972: 161–2).
17 Mary Paley Marshall to Maynard Keynes, 5 August 1924 (KMF); Keynes 1972: 166). Keynes transformed this information to stating that Marshall met Mozley through Dakyns, another master at Clifton's and a close friend of Henry Sidgwick, who in 1865 was examining in the school. And see note 10 above.
18 Mary Paley Marshall to Maynard Keynes, 12 September 1924 (KMF): Keynes (1972: 213, n3).
19 Mary Paley Marshall to Maynard Keynes, 16 November 1924 (KMF); she wrote on 17 November 1924 to her cousin by marriage Ainsley (the son of Alfred's Uncle Henry), on sending him an offprint of Keynes' Memoir, 'you will agree with me that he [that is, Keynes] has performed the task admirably. He was Alfred's most brilliant pupil and I rejoiced greatly when he said he should like to do it'. Ainsley also apparently supplied Keynes with a genealogical table ('and you will see he made good use of it') presumably dealing with some of the clerical ancestors mentioned (1972: 161–2) by Keynes. (A copy of this letter was sent to me by the late George Stigler.) No copy of this table has been preserved among the Keynes [Marshall] papers in KMF. The only genealogical table in that file comes from Hawtrey, as discussed below.
20 Mary Paley Marshall to Maynard Keynes (20 November 1924). Apropos the Marshallian verses, Keynes wrote to Lydia Lopokova (21 November 1924, Hill and Keynes 1989: 159), 'Mrs. Marshall has just sent me, to look at, her husband's only poem. It isn't as good as mine! – which is something (but you mustn't show mine to anybody)'. Dermer had written to Mary Paley Marshall (19 November 1924, now in KMF) that he was not responsible for the nickname (and see Keynes 1972: 163 [editorial], n1). The issue of Marshall's relatives and ancestry is pursued in the next section.
21 John Neville Keynes and Florence Keynes to Maynard Keynes, 5 September 1924 (KMF); diary entry for 8 November 1889. Keynes' diaries are a very useful source of information on the type of dinner guests Marshall invited.
22 Mary Paley Marshall is also a possible source for this statement.
23 On the relationship between Marshall and John Neville Keynes, see Groenewegen (1995: esp. 679–87). It is interesting to note that John Neville Keynes did not criticise his son's summary of his assessment of Marshall.
24 R. G. Hawtrey to Maynard Keynes, 15 August 1924 (KMF). A more detailed genealogical tree for the Marshall family is in Groenewegen (1995: Table 2.1).
25 J. H. Clapham to Maynard Keynes, 1 August 1924 (KMF); Keynes (1972: 210, n2).
26 Keynes also tried to obtain information from other sources, sometimes unsuccessfully. An example of the latter is his attempt to gain access to Bank of England information about Marshall's father; a more successful attempt is his letter to Macmillan (his own publisher as well as Marshall's) seeking information on the print runs and sales of Marshall's books.
27 These included all of Marshall's books, with *Principles* quoted from both the first and the third editions to which Keynes had access (he owned a copy of the third, now preserved in the Marshall Library). Keynes also referred to many of Marshall's

published articles, book reviews, evidence to Royal Commission, letters to the press and even speeches, such as the one Marshall gave when assisting in launching a plan for a Sidgwick Memorial in 1900 with others of the Cambridge University community. The knowledge shown by Keynes of Marshall's published work is impressive and, from the fact that it was often quoted in the Memoir, indicates that he must have more than dipped into it during the time of writing.

28 These included Mill's *Autobiography* and *Political Economy*; Jevons' *Serious Fall in the Value of Gold*; Clifford's 'Ethics of Religion' and Pollock's life of Clifford in the two-volume life and writings of Clifford (edited by Pollock and Leslie Stephen); Leslie Stephen, *The English Utilitarians*, and Frederick Macmillan, *The Net Book Agreement*.

29 Perhaps this included Keynes' embroidery on the information given in Marshall's 1908 preface for *The Fiscal Policy of International Trade* when his note (Keynes 1972: 218, n1) 'explains' the loss in the mail in 1903 of Marshall's corrections to its second part by the fact that '[t]hey were stolen by a local post-mistress in the Tyrol for the sake of the stamps on the envelope'. Mary Paley Marshall's notes give no authority for this remark.

30 These include Cannan (1924: 66); G. H. Leonard, letter to the *Bristol Times and Mirror*, 8 October 1924; G. H. Leonard, 'University College: a Charming Sketch of the Early Days', *Bristol Times and Mirror*, 6 June 1925.

31 These include her splendid notes for W. R. Scott to assist him in writing the official obituary for the British Academy; and notes at Newnham College for a lecture to the Marshall Society and for her *What I Remember* (Marshall 1948). For a description of their content, see McWilliams-Tullberg 1993.

32 One example of that innuendo is the reference to Marshall's father as recalling James Mill, another is Marshall's alleged recollection of a 'tyrant father keeping him awake into the night for the better study of Hebrew' (Keynes 1972: 163, 164), which not only converts Mary Paley Marshall's precise reference to 'up to 11 p.m.' in this context to the more ominous phrase 'into the night', but fails to note that Hebrew did not become part of Marshall's schoolwork until he entered the sixth form at age sixteen (see Groenewegen 1995: 56, n*).

33 Keynes probably here recalled Marshall's words from his sickbed on 16 May 1924, that he 'won't be bossed by women' and will only do what the doctor says, not follow orders from his wife or the nurse who assisted her (Keynes to Lydia Lopokova, 16 May 1924, in Hill and Keynes 1989: 195).

34 Marshall also appears to have misled others, including his wife, on his actual birthplace, and on a number of aspects about his family, including perhaps his father's ultimate status at the Bank of England.

35 This discussion ignores evaluations of Marshall's views on particular topics without significant biographical content, whether broadly or narrowly conceived.

36 This partly corrects Keynes' (1972: 201, n1) view of Marshall's active involvement in the Extension Movement, for which there is no real evidence (see also Groenewegen 1995: 274).

37 For a detailed discussion of this aspect of Marshall's life, see Groenewegen (1995: 203–8, 237–8).

38 Keynes in 1925–6 edited Marshall's official papers for publication; recent work on these official papers and Marshall's work for government includes Mathews (1990) and Groenewegen (1994) on the Labour Commission; Coats (1968a) and Deane (1990) on the fiscal policy of international trade and, more generally, Groenewegen (1995: ch. 11) on Marshall's advice to governments taken as a whole.

39 On the formation of the British Economic Association, see Coats (1969b), Kadish and Freeman (1990); on the women's degree issue, see McWilliams-Tullberg (1975; 1990); on the creation of the tripos, see Collini *et al*. (1983: chs 10, 11); Groenewegen (1988); Kadish (1989; 1991) and Kadish and Tribe (1993: ch. 5).

40 See Whitaker (1990).

41 Coase's detailed research on Marshall's family and ancestry, including the activities in Australia of his Uncle Charles, which produced three boxes of documents, is a good indication when the costs of this genealogical research (financed by the Liberty Fund) are totted up. These would run into tens, if not hundreds of thousands of dollars, in current dollar values.

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# 27 Joseph Alois Schumpeter (1883–1950)

## A centenary tribute

J. A. Schumpeter was born at Triesch in the Austrian province of Moravia (now Czechoslovakia) on 8 February 1883, the only child of the cloth manufacturer Alois Schumpeter and Johanna Schumpeter-Grüner. Joseph Schumpeter lost his father in 1887. In 1893 his mother married again to Sigismund von Keler, a military man, but this marriage ended in divorce in 1906. A consequence of this second marriage was that from 1893 onward Joseph Schumpeter lived in Vienna, and from that year till 1908 went to the Theresianum or Mittelschule, the form of education favoured by the aristocracy. He graduated with honours in 1901, having received a solid classical education of Greek and Latin supplemented by language studies at home through the highly cultured background supplied by his mother in teaching him French, English and Italian.

From 1901 to 1906 he was a student in the faculty of law at the University of Vienna, obtaining the degree Doctor of Law in 1906; the law degree then, as currently, requiring comprehensive examination of politics and economics. Schumpeter did practise some law in 1907–8 during his short stay in Cairo, but his main love from the beginning was economics. During 1905 and 1906 he attended Böhm-Bawerk's seminar with fellow members Ludwig von Mises and the Marxists Otto Bauer, Rudolf Hilferding and Emil Lederer (the last becoming one of the founders of the graduate faculty at the New York School of Social Research). Otto Bauer was responsible for Schumpeter's short stint as finance minister in the Austrian Republic in 1919, and he must have learnt a great deal about Marx and Marxian economics in this company.

After graduation in 1906, Schumpeter went to England for several months, largely to work on economics in the British Museum, but he also paid visits to Cambridge and Oxford where he met Marshall and Edgeworth. He there must also have met his first wife, Miss Gladys Ricarde Seaver, whom he married in 1907. A short stay in Egypt followed, then from 1909–11 and 1911–18 he obtained his first university appointments at the Universities of Czernowitz (now in Romania) and Graz. In 1913–14 he spent a year as Visiting Professor at the University of Columbia, New York, during which time he gave a course on social classes.

In this initial period as a graduate he published in rapid succession his first important economic works:

1906 *On the Mathematical Method of Theoretical Economics*
1908 *Wesen und Hauptinhalt der Theoretischen National Okonomie* ['Nature and Principles of Theoretical Economics']
1912 *Theory of Economic Development*

The last two of these established his place in economic theory. That year also saw the publication of his first work on the history of economic thought – *Economic Doctrine and Method* – which Haberler describes as a profound and mature piece of work which only the expert can appreciate (Haberler 1951: 28).

It is interesting to note that when Schumpeter penned Böhm-Bawerk's obituary in 1914, he remarked that Böhm-Bawerk's life confirmed the 'generalisation … that the roots of important original achievements, especially those of a theoretical nature, can almost always be found in the third decade of the lives of scholars', a period described by Schumpeter himself as 'that decade of sacred fertility'.

This hypothesis definitely fits Schumpeter, since the three early publications I have mentioned, particularly the two published in 1912 when he was twenty-nine, were the foundations of his two more important mature works, *Business Cycles*, published in 1939 and *History of Economic Analysis*, published posthumously in 1954 by his third wife Elizabeth Boody Schumpeter.

Before he left Vienna in 1925 and after his resignation from Graz University in 1918 (in which year he published his *Crisis of the Tax State*) Schumpeter held office in Kautsky's Socialisation Commission in Berlin (till 1919) and then became State Secretary for Finance in the Renner government (15 March–17 October 1919). After his resignation he worked in a bank among other things, until in 1925 he accepted the Chair of Public Finance in Bonn. In 1924 his second marriage took place, to Annie Reisinger, who died in childbirth in 1926, the same year as the death of his mother. During Schumpeter's Bonn period, he spent two periods at Harvard as Visiting Professor (1927–8 and the first term of 1930). His two publications of note in this period after 1918 were *Imperialism*, published in 1919, and *Theory of Social Classes*, which appeared in 1929. Both essays were published posthumously in 1951 in English translation by his Harvard student, Paul Sweezy.

As already indicated, in 1932 Schumpeter left Germany for good. He obtained a permanent appointment at Harvard which he retained till his death in January 1950. Initially he stayed with Frank Taussig (1939–40), whose obituary he penned for the *Quarterly Journal of Economics* in 1940 (reprinted in Schumpeter's *Ten Great Economists*). Taussig apparently kept him hard at work, and we possibly owe it to him that Schumpeter's magnum opus, *Business Cycles*, was completed at all. It was this work that kept him busy during the 1930s, though he had sufficient time as well to cooperate with Ragnar Frisch and Jan Tinbergen in founding the Econometric Society and to write for the early issues of *Econometrica*. In 1942 there followed *Capitalism, Socialism and Democracy*, which, as the preface to the first edition put it, summarised 'almost forty years' thought on the subject of socialism' (Schumpeter 1942: xiii). It also contains his brilliant intellectual portrait of Marx reprinted in the first chapter of *Ten Great Economists*. It was well received, and as Smithies put it, 'an immediate success' (Smithies 1951: 14). It was almost immediately followed by work on what was to be his never completed 'second' magnum opus, *History of Economic Analysis*. That work, the last from his pen, appeared posthumously in 1954 after careful editing by his wife, Elizabeth Boody Schumpeter, who also died before completing this task and who has recounted its problems in her editorial epilogue to the volume. A tribute to this work can best be given by that other great German-American historian of economic thought of the twentieth century by quoting the opening paragraph of his review article in the *American Economic Review* (Viner 1954: 894).

> The appearance of Schumpeter's *History of Economic Analysis* constitutes a major event in the history of the *Dogmengeschichte* of our discipline. It is a book large in its physical proportions; its text proper amounts to some 1180 large and closely printed pages, much of it in small type. It covers its subject matter from ancient Greece to Keynes. It aims to account for every writer who made a significant contribution to the development of economic theory.
>
> Greek, classical Latin, mediaeval Latin, Italian, Spanish, Swedish and Dutch contributions, as well as, of course, German, French, and English literature, are reported on from their original texts. Most important of all, this is a history of theory written on the grand scale by an economist who was an original, a powerful, and a versatile theorist on his own account. Schumpeter, moreover, was interested, deeply interested in apparently the entire range of matters intellectual, was learned beyond the normal capacities of economists, could exercise with facility and with power the whole range of skills which the economic theorist employs; static analysis, dynamic analysis, historical analysis, mathematical and statistical analysis, partial- and general-equilibrium analysis, and so forth without visible end. He was able to deal familiarly with all ages and with the materials of a wide range of disciplines: physics, psychology, history, sociology, mathematics, philosophy, jurisprudence and perhaps still others. This is a work written in the polymath manner by perhaps the last of the great polymaths.

To add to this superb commentary from Viner would be presumptuous on my part. To discuss his contributions to business cycles would be equally so, particularly after recently editing the English translation of Sylos-Labini's superb comparison of Marx and Schumpeter on the subject of growth and cycles, which is to be published by the May Foundation later this year in an *Altro Polo* on Italian economics (Sylos-Labini 1983).

As a historian of economic thought at a history of economic thought conference, it seems therefore more fitting to pay tribute to Schumpeter in relation to one of the first of his books, which was the last of his books to be translated into

English: the 1912 *Economic Doctrine and Method*.[1] This, I might add, is also one of the first books of Schumpeter I purchased and read, though I should also note that Schumpeter's work was then very much part of the current economic reading at the University of Sydney and I bought *Capitalism, Socialism and Democracy* as a textbook.[2]

The fact that the *History of Economic Analysis* grew out of the slender *Economic Doctrine and Method* is one of the prime reasons for turning to the latter if Schumpeter's broad views on the history of economics are to be appreciated. It should be noted at the outset that the structure of the two volumes is more or less the same. The latter explicitly grew out of the former and from the fact that Schumpeter had begun teaching history of economic thought again at Harvard in 1944 (E. B. Schumpeter 1954: v–vi). It can be said that Part II of the 1954 *History* developed Chapters 1 and 2 of its predecessors; Part III covers the contents of the earlier Chapter 3; the subject matter of Part IV and Chapter 4 coincide. The time periods covered in these parts are approximately up to 1790, 1790–1870, and 1870–1914 respectively. The 1954 volume added an introductory first part and a concluding modern developments part which find no real equivalent in the earlier work.

In the remainder of this essay I want to focus on the significance of the difference in treatment of the common subject matter of Part II of *History and Economic Analysis* and that of the first two chapters of *Economic Doctrine and Method*. This covers the beginnings to 1790, the last date of which is described as a 'classical situation' in the latter work. In the pre-1914 production, the first chapter deals with the beginnings up to approximately 1750 (Hume is included) while the second treats the Physiocrats and Adam Smith as the period in which economics became a science.

The strength of *Economic Doctrine and Method* is therefore that it highlights the developments in the period 1750–90 (the first classical situation of the *History of Economic Analysis*) by placing the Physiocrats and Smith in a *separate* chapter and focusing on the concept of the circular flow of economic life as the great unifying theme which produced *systematic* economic analysis. This development is therefore sharply contrasted with the development of economics as a science, which Schumpeter saw as emerging from

1 the study of philosophers from earliest times,
2 the writing of people with an interest in practical problems of the day – the administrators-merchants-pamphleteers.

Schumpeter suggests that these two streams should be rigidly separated. However this procedure produces some classificatory problems, which include

(a) Philosophers cannot always be separated from administrator-merchant pamphleteers. This is not only the case with Locke, as Schumpeter admits (1954b: 27), but also with some of the scholars who discussed practical problems in a *philosophical* manner.

(b) The early beginnings discovered in Greek philosophy and in medieval thought and which can of course be carried back further to Babylonian times and so on, are in some ways not very meaningful. How, for example, can the analysis of monopoly and oligopoly in the thirteenth century, have connotations similar to oligopoly analysis in the 1980s or the analysis of monopoly granted by charter in the trading companies in the seventeenth century?

Although the rigid separation of these streams cannot be taken too seriously, the insight of the two streams merging in the seventeenth and, more importantly, the eighteenth century is, I think, most important. It should also be noted that the merging of the two streams in individual cases is a relatively frequent occurrence: examples include Petty, Locke, Barbon, North and Berkeley, who all appear to fit the philosopher and the practical administrator/merchant category.

In this context it is also important to notice how Schumpeter sees philosophy developing to form moral philosophy from a number of strands by the middle of the eighteenth century (Hutcheson). This is indicated in the following quote:

> All these special branches – Theology, Ethics, Jurisprudence and Economics – formed a unity for which the term 'Moral Philosophy' became customary. By this we must not understand either a 'moral doctrine' or a 'philosophy' in the modern sense but a comprehensive system of thought (*Geisteswissenschaft*) which in spite of all metaphysical admixture became more and more empirical and analytical and was opposed to the natural sciences, termed in those days Philosophy of Nature. This system of moral philosophy rested in all its branches on identical premises, that is, on the same simple assumptions with regard to human motives and their relation to human actions; it was in all its parts individualistic, rationalist and absolute in the sense that the conception of growth receded almost completely into the background. Since in this organic unity one element affects all the others, almost every thought is important for economics as well. In this connection the philosophic achievements of Locke and Hume must be mentioned in the first place, because never again was philosophy to such an extent a social science as at this period.
>
> (Schumpeter 1954: 22–3)

It is interesting to note, as Sir Alexander Gray (1948: 12–13) and others have done, that these four branches of moral philosophy were precisely those which Smith developed in his lectures at Glasgow, and which he wanted to make his life's work. Smith of course only completed the ethics and the political economy in book form; the jurisprudence was among the manuscript material burnt prior to his death, the last included much of the material partly reflected in the later work of Millar and in that of the work of contemporaries and friends such as Ferguson and Robertson.[3]

This passage incidentally highlights one of the problems for Schumpeter in dividing philosophy from practical economic discussion, since the 'economics' branch of the moral philosophy system was of course the 'police, justice, revenue and arms' of the Glasgow lectures. This covered economic policy in general – the concern of the consultant administrators and the pamphleteers.

The broad thrust of Schumpeter's argument on the emergence of economics is therefore basically correct – apart from the historical difficulties already noticed – but the details of the argument are not. Part of this error of detail is explicable through the advances in research and availability of material. For example, the bulk of the English 'seventeenth- and eighteenth-century literature' available to Schumpeter when writing this little book comes from the Jacob Hollander reprint series (Barbon, North, Vanderlint, Berkeley, Asgill); the Italian names appear to come from Loria's contribution to Palgrave. More importantly, error of detail results from hurried research and occasional bias (Barber for Barbon; 1749 instead of 1748 for Montesquieu's *L'Esprit des Lois*, to give two examples). However, and this is of greater importance in this context, it is amazing that he could provide an extremely accurate generalisation on the basis of such slender research material.

The bias of Schumpeter – which has been noted in his *History of Economic Analysis* in the reviews by Robbins (1955) and Viner (1954) is most clearly illustrated in Chapter 2 by way of its title and the implicit depreciation of Adam Smith.[4] The emphasis on the circular flow as the feature which marked the emergence of economics is in part a reflection of the importance assigned by Schumpeter to this notion in his theoretical framework for his *Theory of Economic Development*, produced at about the same time. The first chapter of that work from which directly and indirectly the greater part of Schumpeter's later analytical work developed deals with the circular flow of economic life.[5] Since the circular flow as an 'equilibrium model' was largely developed by Quesnay in the context of an agricultural economy, it is Quesnay of course who gains the crucial role in the emergence of economics. However, it should also be noted here that Schumpeter's treatment of Smith in conjunction with the Physiocrats is far more meaningful and accurate than the tradition which starts with Adam Smith and effectively treats the rest as pre-Adamite economics of little importance.

I conclude by reiterating the major point I want to make; this is that the periodisation schema in *Economic Doctrine and Method* focuses much more clearly and accurately on the emergence of economics as a science because it isolates the key period of post-1750 in which that emergence took place. Similarly, the discussion in Chapter 3 on the classical school and its offshoots focuses more sharply on the next period in the history of economic thought as seen by Schumpeter than does the later work. The same applies to the final chapter on the then contemporary developments in economics – particularly from a German/Austrian standpoint – concentrating as it does on the historical school and the development of the theory of marginal utility.

As compared with the later *History*, the 1912 book provides a far clearer picture of the forest. I recommend its reading strongly to those interested in grasping the essentials of Schumpeter's views on the history of economic thought, which surprisingly changed little over a period of close to forty years. In addition, the book abounds in the typical Schumpeterian insights, ranging from the most profound to those which are irritating or sometimes wrong. The early book is also a fine example of Schumpeter's skill as an author, and the vitality and audacity of his intellect at the age of twenty-nine. Who, before the age of thirty, would have dreamt of writing the history of a science like economics *in toto* and then actually have done it? It is these characteristics of his style: the broad general assertions, the audacious interpretation, the wide general knowledge that Schumpeter brings to bear, that continue to make his work of relevance and stimulus to the present generation of economists. Like the work of Marx and Keynes, that of Schumpeter will continue to provide inspiration and insight into the understanding of economic theory. This applies as much to his work on business cycles as on the history of economics.[6]

## Notes

1 The publication date of this book is shrouded in mystery. My copy of the English translation indicates that it was first published in 1912, as does its translator in his preface (2). Haberler (1951: 28 and n15) suggests 1914; Schneider (1951: 57, n6) suggests 1914 as well, but it would seem that both were in fact reprints in a larger project published in book form in 1914. Viner (1954) refers to the second impression of the book in 1924. E. B. Schumpeter (1954: v, n10) indicated 1914 with 1924 as second edition.

2 On refreshing my memory with the 1957 faculty handbook I notice that apart from this book, Economics IV also recommended his *Theory of Economic Development* as a text, and in History of Economic Thought his *Ten Great Economists* and *History of Economic Analysis*.

3 Schumpeter, (1954: 66, nl), repeats Marx's baseless charge that Smith borrowed from Ferguson on the division of labour and taxation. It was of course Ferguson who borrowed from Smith on these matters, while both benefited from the mutual influence of Montesquieu. For discussion of this see my 'Turgot, Beccaria and Smith' (1983: 32–3).

4 Cf. Viner (1954: 904), where this bias is summarised:

> Schumpeter's 'Reader's Guide' to Adam Smith's *Wealth of Nations* although unfinished, is an admirable outline of such theoretical structure of 'system' as there is in that book, and would make an extremely useful introduction to any new edition of it. Schumpeter does not like Smith, however, as theorist, as man, or with respect to his social views. The *Wealth of Nations* although in some unexplained way it was a 'great achievement' (38), completely lacks originality. It 'does not contain a single *analytic* idea, principle, or method that was entirely new in 1776' (184). Many of his predecessors excelled him as analysts. Verri's concept of economic equilibrium was 'as far as this goes, rather above than below A. Smith' (178). It is 'not without interest to observe how little, if anything [Campomanes] stood to learn from the *Wealth of Nations*' (173). Most references to Adam Smith are hostile. He suggests that Smith's criticism of

> Mandeville's (two volume!) 'pamphlet', *The Fable of Bees*, may have been due to jealousy of Mandeville as the anticipator of the argument for 'Smith's own pure Natural Liberty' (184). 'The wooden hands of the Scottish professor' and 'the safe side that was so congenial to him' (212), his 'feelings of resentful distrust' and his 'narrow views' with respect to big business (150, 545), these are representative of Schumpeter's reaction to Smith. Smith was writing 'in bad faith' when he claimed that mercantilists 'confused' wealth with money (361). It is not, I think, necessary to accept Adam Smith as a hero of our profession to conclude that Schumpeter's objectivity was somewhat undermined here by the conflict between Smith's and his own 'ideologies'.

And cf. the catty and wrong remark on Smith's lectures (Schumpeter 1954b: 65–6) in which it is claimed that Smith 'hardly altered more in his teacher's system than any lively pupil would have done'. No evidence is presented and it does not conform with my own reading of Smith and Hutcheson, or that of most others.

5 Conceived very much as Quesnay did and Walras did – both of whom were Schumpeterian heroes, as Viner (1954: 899) also points out and as Schumpeter abundantly makes clear in his histories.

6 After completing this paper I came across Staley (1983) which discusses the interrelationship between Schumpeter (1954a) and his lectures at Harvard on history of economic thought, a topic of considerable relevance to the subject matter of this appreciation of Schumpeter's work.

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# 28 Joan Robinson

## 1903–83

The death of Joan Robinson at Cambridge on 5 August (just three months before her eightieth birthday) has deprived the world of one of the great economic theorists and radical political economists of the twentieth century. At the same time, we have suffered the loss of one of the very few women economists to have gained enormous international fame in this male-dominated profession, even though she was never awarded the Nobel Prize in Economics she so fully deserved. As Tharos Skouras observed in a recently published essay on Joan Robinson's life and work, these two distinctions achieved during her half-century career in economics constitute also one of 'the great scandals of the economics profession' (Skouras 1981: 216–17). Finally, the world has lost an enthusiastic though occasionally uncritical champion of the socialist world, who argued strongly in support of a socialist road to economic development and vigorously campaigned against some of the more blatant injustices associated with capitalism, ranging from unemployment to the arms race and the Viet Nam war. Fortunately, the world has not lost her as a profound teacher of economics and political economy: the enormous legacy of her published works ensures that her influence long survives her.

What does this legacy consist of? Although she wrote more than a dozen books, commencing with her *Economics of Imperfect Competition* in 1933 – a book she rejected twenty years later because it was 'a scholarly book' which did not provide 'a suitable basis for an analysis of the problem of prices, production and distribution which present themselves in reality' – the best overview and appreciation of her life's work comes from a perusal followed by careful study of the five volumes of her collected economic papers published between 1951 and 1979 (their contents were recently reviewed and surveyed by Gram and Walsh [1983]). These range from her early essays on Euler's theorem and the problem of distribution, the meaning of perfect competition and rising supply price to her brilliant polemics in *On Re-reading Marx*, her critical essays on capital theory spanning more than two decades, her constructive essays on growth and development and international trade theory, and her concern with the practical problems of inflation, unemployment, the Third World and the economics of socialism. They also include literary gems such as, to take but two examples, her undergraduate parody of Beauty and the Beast and her mature advice to Indian students on the teaching of economics. Fortunately, these volumes are readily available (together with an index compiled by two of her students – both, incidentally, Australians) and thereby facilitate an essential investment for the serious young political economist who wishes to gather her accumulated wisdom at leisure.

Joan Robinson was born on 31 October 1903 into an upper middle-class English family of radical dissenters and social critics with a strong Cambridge University background (her paternal great-grandfather was F. D. Maurice, Christian socialist and Cambridge moral philosophy professor; her maternal grandfather, F. M. Marsh, was Professor of Surgery at Cambridge). She was educated at St Paul's Girls' School and then at Girton College, Cambridge, from which she graduated with upper second-class honours in economics in 1925 ('a great disappointment'). In 1926 she married Austin Robinson (later Sir Austin) one of her teachers of economics. After a brief stay in India, she joined the Faculty of Economics and Politics at Cambridge itself in 1931 in time to actively participate in two revolutions in economic theory which were then brewing there.

Although this first revolution made her international reputation with the publication of her 1933 book on *Imperfect Competition* (which won the accolade from Marshall's widow that it demonstrated, contrary to her husband's beliefs, that women could write theory), this careful geometrical elaboration of some of the theoretical avenues opened up by Sraffa's 1926 article was quickly and totally overshadowed by what she later considered to be her far more important work of first aiding the birth of Keynes' *General Theory* between 1933 and 1936, then popularising it in her 'children's guide' to the theory of employment of 1937 and finally critically defending and generalising it in most of her subsequent work. Her important contributions to the process now known as the Keynesian Revolution can be appreciated from her notes and memoranda reproduced in Volumes XIII, XIV and XXIX of Keynes' *Collected Works* and from her 1937 *Essays in the Theory of Employment*, which elaborated on a number of points not made in Keynes' book, by more explicitly extending its argument to long-period problems and problems of international trade.

Her subsequent generalisation of the *General Theory* proceeded along a route which broadened her economic education from that provided by Marshall's *Principles* and Keynes, partly through her early appreciation of the work of Kalecki, and via him, of Marx, whose works she systematically studied in the 1940s 'as a distraction from the war'. This produced her highly critical but very instructive *Essay on Marxian Economics* of 1942 and a much greater interest in genuine dynamic problems of growth and history, as can be seen from her very perceptive review of Harrod's dynamic economics published in the *Economic Journal* in 1949 (reprinted in Volume I of her *Collected Papers*). In addition to Marx and Kalecki, her analysis of economic dynamics and the accumulation of capital indicated the need to come to grips with the difficult problems of capital theory which, at that stage, had reached its greatest heights in the *Lectures* of the Swedish economist Wicksell. Marshall, Wicksell, Kalecki and Keynes get major acknowledgements in her magnum opus of 1956, *The Accumulation of Capital*, which many consider to be her single most important contribution to economic theory. This work provided an important attempt at the integration of 'macro- and micro-economics', whose artificial separation foisted upon the profession through, initially, the North American, but now almost universal neo-neoclassical synthesis, she abhorred. The book also demonstrated the inherent instability of capitalism shown by its inability to achieve stable long-run economic growth without short-period fluctuations in the absence of government intervention and planning. Questioning of the self-regulating properties of the capitalist system led to her most significant disputes with the high priests of neoclassical theory at MIT (Massachussetts Institute of Technology) in the famous Cambridge controversies on capital theory.

These disputes, which ended in intellectual victory for Cambridge (England) as was admitted by Professor Samuelson of MIT in his 1966 formal recantation in the reswitching symposium, did not achieve the real victory which Joan Robinson desired by the reconstruction of economic theory into a critical and useful political economy. She was fully aware that the logical invalidation of 'wrong' theory was not sufficient for this purpose even though it was, of course, an essential prerequisite. As she complained ten years after the event, utilising Keynes' devastating quote from Ibsen's *The Wild Duck*, as applied to Hayek in 1936, 'mere logic will never prise a writer of his paradigm until he is ready to drop it himself'. Three paragraphs after this comment (in the introduction to the second edition of her third volume of collected economic papers) she gave a more optimistic recipe for that reconstruction of political economy which she so much desired and the realisation of which she sometimes despaired.

> The function of the theory of effective demand, in a Marxian setting, is to provide an account of the realisation of surplus value, which Marx left rather vague. The theory of prices in Kalecki's version of the General Theory is more up-to-date than Keynes'. The monetary aspect is much more fully developed by Keynes, but there is a weak point in his treatment of it. He identifies the Stock Exchange value of the shares of a company with the value of its real productive assets. Thus, in some passages, he makes a fall in the level of interest rates stimulate investment by raising the value of equipment relatively to its cost of production, instead of merely by making finance cheaper relatively to expected profits. Connected with this is an ambiguity in the definition of the 'marginal efficiency of capital' … Kalecki's version of the General Theory, rather than Keynes', has been incorporated in the post-Keynesian tradition. The function of Sraffa's prelude to a critique is mainly negative – to knock out the marginal productivity theory and clear a space where a Marxian analysis of modern problems can grow up. There is plenty of work still to do.
>
> (Robinson 1975: xiii–xiv)

The last paragraph of this quotation provides her real epitaph, with its hope for the future reconstruction of political economy and the lines on which it is to proceed. This is more appropriate to her memory than the peculiar stories about her alleged disillusionment with economic theory published in an interview given prior to the stroke in February which ended her life six months later. She herself did not spare her labours in this endeavour, unsuccessful though she thought them to be in her last years when 'pre-Keynesian-economics-after-Keynes' appeared triumphant in the western world as symbolised by the dole queues of Thatcherism and Reaganomics. In one of her last published papers she wrote:

> In spite of all we have learned and are continuing to learn on these questions, public education has fallen into a trough of reaction and the public is being misled with the hollow slogans of monetarism and the self-contradictory arguments of the so-called 'supply side' theories.
>
> (Robinson 1982: 47–8)

The first sentence of the longer quotation above provides an opportunity for comparison with another great woman economist whose reputation she did much to rehabilitate. This was Rosa Luxemburg, for the English translation of whose major work she provided a most perceptive introduction in 1951 and the title of which she 'borrowed' for her own major work on that subject published five years later. Although there are enormous differences in the lives and backgrounds of these two great women economists, they have a number of things in common. They were both thinkers of tremendous honesty and independence of mind, and reveal themselves as that 'rarest of rare phenomena – Marxists critical of Karl Marx' (Stark 1951: 11). Both were also fighters for social progress, equity and an economic development geared to providing work and rising living standards for all. The serious study of political economy which her work continues to encourage is part of the road towards achieving such laudable objectives.

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# 29 Unemployment and price stability

## Aspects of the Marshallian legacy on the monetary economy[1]

It should be noted at the outset of this chapter that the criticisms Keynes (1973: xxii–xxiii, 292–3) made of what he called 'classical economics' in terms of a classical dichotomy between real economy and monetary economy, or the theory of money and the theory of value, are difficult to apply to the upholders of the Marshallian Cambridge tradition discussed in this chapter, that is, Robertson, Keynes and Marshall himself. It needs equally to be emphasised that this proposition does not necessarily apply to other, sometimes self-styled, upholders of the Marshallian tradition, of which Pigou is undoubtedly the major, but not the only, example. Especially from the sixth edition onwards when it became a single, self-standing volume of foundations, Marshall's *Principles* (Volume I of an initially projected two-volume treatise)[2] was very clear in its warnings that virtually all of its conclusions were to be taken as provisional. This provisional nature arose from the fact that the treatment in that volume largely left out highly pertinent aspects of money, credit, international trade, government action, market combinations and so on (Marshall 1961: esp. xii–xiii, 593–5, 722). This is the real sense in which Marshall's *Principles* constitutes unfinished business. Keynes himself appears to have appreciated this facet of his master's work (Keynes 1973: xxix), though with rather few exceptions it has been ignored since then, even when aspects of the Marshallian heritage of Maynard Keynes are explicitly being analysed.

Negishi (1985) is one of the more important exceptions to this tendency[3] of mis-reading Marshall.[4] 'Unlike Walras, Marshall did not dichotomise his system into an abstract moneyless system and monetary system. Money does exist from the beginning, though its purchasing power is assumed to be constant when relative prices are considered' (Negishi 1985: 170, cf. 174).[5] Negishi (1985: 170–3) based this finding on his interpretation of the Walrasian position, with its emphasis on 'nonmonetary' *tatônnement* in market clearing, combined with insufficient stress on the 'store of value' function of money, of which Walras, however, is less guilty than some of his followers (for example, Patinkin 1956, to use Negishi's example). Although aspects of Negishi's argument on this are somewhat controversial,[6] the main thrust of his conclusion, that Marshall was more aware of the dangers in the classical dichotomy than many of his contemporaries, stands firm. This is perhaps explicable in terms of Marshall's natural sense of caution; it is also very clearly implied in one of his favourite mottoes, 'the many in the one, the one in the many'.[7]

Negishi (1985: 174–6) illustrates the argument more positively by outlining his version of Marshall's 'monetary' theory of the trade cycle. There it is argued Marshall's theory is that of a monetary economy, in which the changes in the purchasing power of money have real consequences, inducing, for example, changes in capital market transactions, in output and in employment, and hence also on relative prices.

The trade cycle was first briefly analysed by Marshall in *The Economics of Industry* (Marshall and Marshall 1879: 150–7), reiterated in his evidence prepared for Royal Commissions (Marshall 1926: esp. 7–10) and, perhaps most importantly, partly reproduced in the later editions of the *Principles* (Marshall 1961: 595–6, 710–11, 714–16) to highlight the provisional nature of the conclusions predicated in that work. Negishi (1985: 178–81, cf. ch. 2, esp. 18–22) likewise indicates that despite the close resemblance of Marshall's temporary equilibrium prices in the corn market (Marshall 1961: 332–6) to Walrasian *tatônnement* prices (cf. Kregel 1992), there is a difference partly from the consciousness by which Marshall stressed his constancy of marginal utility of money income assumption which at one stage splashes over into considerations of the credit market (Marshall 1961: 334–5, n1). This difference becomes greater when firms are brought into play. Marshall's firms do not perceive the perfectly elastic demand curve of Walrasian perfect competition, assuming any quantity can be sold at a given price. They are limited by their own market. Marshall used this property of his firms particularly in his solution to the 'Cournot problem', arguing that for 'trades in which the economies of production on a large scale are of first rate importance, marketing is difficult', hence firms are likely to find in this situation that 'this particular demand curve for their own special market [is] very steep, perhaps as steep as [their] own supply curve' (Marshall 1961: 458). Marshall's unquenchable thirst for realism implied a reluctance to engage in abstractions of a perfectly competitive world with neutral money.

Moreover, money was also Marshall's measuring rod for use in decision-making in any realistic economic situation. Money not only acted as a measure of the 'force of a person's motives' in either securing a 'desirable satisfaction' or 'undergoing a certain fatigue' (Marshall 1961: 15), it was crucial for aggregating heterogeneous production costs which, relative to revenue flows, determined entrepreneurial decisions about levels of economic activity and production. For Marshall, such aggregation was always done in money terms (Marshall 1961: 359–62). This is the real justification for Marshall's provisional assumption that the purchasing power of money should be taken as constant for much of the argument in the *Principles*. It thereby also provides the explanation why results based on this generally unwarranted assumption, given the regularity of business fluctuations Marshall consciously observed over his lifetime, could only be seen as equally 'provisional'. Emphasis on the crucial measuring role of money in facilitating economic decision-making in consumption and production also underlies much of his interest in securing means to approximate price stability for the decision-maker.

This chapter does not address the wider issues raised in Marshall's non-Walrasian economics. Instead, its first section presents a discussion of Marshall's extensive concerns with the monetary economy in his published writings from the 1870s onwards, linking them specifically with issues of price stability and unemployment. It then examines the notions of 'monetary economy' embodied in the early (that is, largely pre-1930) work of Robertson and the post-1926 work of Keynes, and its associations with price stability and unemployment. A final section draws some brief conclusions from this excursus into Cambridge monetary history.

## Marshall and the monetary economy

Marshall's first interest in economic studies coincided with the period of depression following the 1866 financial crisis. He subsequently witnessed regular depressions of trade during the 1870s, 1880s and 1890s, and hence accepted Lord Overstone's views that these were aspects of 'an established cycle' in which confidence and prosperity generated over-trading and speculation, convulsion and crisis, followed by distress (Marshall and Marshall 1879: 153).[8] Subsequently, Marshall's rather few preserved observations on the various manifestations of this phenomenon of industrial capitalism were largely made in the context of royal commissions. They took the form of submissions and oral evidence for the currency commissions of the 1880s. When, in the early 1890s, he himself was a member of a royal commission, that on labour (Groenewegen 1994b), Marshall reported in some detail on the irregularity of employment as part of that commission's final summary of the evidence it had heard.

Marshall's early interest in the topic can be gauged from the annotations he made to his copy of Mill's *Principles*,[9] the first book he claimed to have read on economics. From Mill's Book III, in which his thoughts on money and crises are largely contained, Marshall would have become quickly familiar with mid-nineteenth century mainstream opinion on cycles and monetary theory. Mill's treatment was all the more useful because of his tendency in the *Principles* to present both sides of the argument in a sympathetic manner. This is visible in his treatment of the currency/banking school controversy and of the question whether general over-production or deficient demand was a real possibility, as Malthus, Sismondi and Chalmers had maintained against Say, James Mill and Ricardo. The support in this context which J. S. Mill gave to Say's Law was breached by his qualifications to this proposition. More particularly, Marshall would have learnt from Mill that money in general could only be seen as a veil. After prices had adjusted to changes in the quantity of money, and exchanges were conducted on the basis that money was only a counter, the significance of a monetary economy as against 'barter' became almost nugatory. However, changes in money and credit did affect the volume of transactions through the redistributional impact which accompanied the change in the price level. This effect was implicitly confined to the short run. Although Hume's prognosis of potential monetary effects on real activity levels was criticised by Mill, he did admit income effects from price changes through what he described as 'zero-sum' redistributional transfers. A monetary economy did therefore have significant effects on transaction levels in the short run, before changes in money supply and credit yielded a 'general and permanent rise of price' (Mill 1865: 334). However, business fluctuations were explicitly associated with a credit economy. Moreover, Mill implicitly admitted that the existence of competitive markets by themselves could not solve the problem of crisis and depression: some official credit management through the Bank of England appeared desirable.[10]

The manner in which Marshall had learnt his Millian lessons is visible in his treatment of changes in the purchasing power of money in *The Economics of Industry* (Marshall and Marshall 1879: Book III, ch. 1).[11] Although Marshall indicated that a full treatment of this subject belonged to a projected companion volume (*Economics of Trade and Finance*), money-induced changes were an important 'short period' explanation of the deviation of market prices from what he then called normal, competitive values, thereby indicating that an unchanged purchasing power of money assumption was only appropriate to long-run analysis. This chapter also provides Marshall's only systematic account of the cycle in print,[12] and demonstrates the significance he ascribed to the monetary economy for causing alterations in activity and employment levels via the effect changes in money and credit had on price levels.

The actual mechanism of Marshall's credit cycle has been relatively frequently described (for example, Hansen 1951: 270–6; Wolfe 1982: 82–94; Eshag 1963: 77–84; Bridel 1987: 48–51; Laidler 1990: 58–61). Although these discussions all emphasise the monetary nature of Marshall's analysis, they highlight different features of the cyclical mechanism which Marshall presented. Marshall's account of the cumulative nature of the credit cycle in both its upswing and downswing phases is standard classical theory, including the explanation he gave for the crisis in terms of the growing awareness of experienced lenders about the danger signs in a credit boom, which ultimately triggered some spectacular failure through a refusal to renew loans to an over-extended speculative borrower (Marshall and Marshall 1879: 152–3). In his summary of Marshall's theory, Eshag emphasises Marshall's attribution of the beginning of a credit cycle to good harvests.[13] He also mentions Marshall's emphasis on the interdependence of industries in the process through creating additional markets for each other's products, and the uneven impact of cyclical change on different industries, with producers of fixed capital prone to greater fluctuations in demand than those of consumer goods, causing different rates of price changes as between wages, raw materials and finished commodities. Bridel (1987: 49) stressed points in Marshall's account which later became important in discussions of the 1920s and 1930s. Those were its implicit emphasis on hoarding, because people in some of the phases of the cycle have the power to purchase but choose not to exercise it; the variations in output and employment which accompany the credit cycle; and, third, the rigidity in money wages relative to commodity prices which gives a counter-cyclical pattern to real wages over the course of the cycle. Above all, Bridel (1987: 50–1) stressed the short-term nature of Marshall's analysis, arguing that when normal, competitive values rule, the errors of anticipation by economic agents, and by other destroyers of business confidence in the process are effectively eliminated by definition. Wolfe (1982) and Laidler (1990) emphasise the price instability aspects of Marshall's account, with Laidler (1990: 59) focusing on the wage stickiness postulate as an 'explanation of fluctuations of real income and employment'.

Marshall's account of the credit cycle also confirmed the validity of Say's Law in the version J. S. Mill used to combat the 'fallacy' of over-production. However, Marshall qualified this by indicating that the power to purchase created by the income generated from new production (supply) need not always be exercised and, in general, would not invariably be exercised once 'confidence was shaken' in the context of a financial crisis. Hoarding at this stage is a reality of economic behaviour, so that for this phase of the cycle at least, Say's Law breaks down. A number of observations can be made on this aspect of Marshall's discussion of the cycle. First, Marshall never used Mill's argument against the possibility of general excess supply which pointed to the fact that a situation of excess supply in all commodities implies a shortage of money and general purchasing power. Second, Marshall's adherence to Say's Law in 1879 had weakened as compared to earlier in the 1870s when, at one stage, he dogmatically appealed to the 'familiar economic axiom that a man purchases labour and commodities with that part of his income which he saves just as much as he does with that which he is said to spend' (Marshall and Marshall 1879: 32). Third, later work associated with royal commissions did much to elucidate his notion of speculative hoarding in the wider context of the demand for money. This subject had been left rather undeveloped in the 1879 treatment, where it was largely treated as a reluctance to invest in a lower-confidence business climate where demand and returns were considered too low (*ibid.*: 154–5). Considerations like these indicate the evolving nature of Marshall's thought on the subject, a matter not always sufficiently, or adequately, taken into account in the discussions of his cycle theory.[14]

Marshall had been regularly lecturing on these topics at Bristol, and previously at Cambridge, and his interest in the problem of low activity and employment was undoubtedly maintained because of the hardship this imposed on workers and their families. A paper on continuity of employment, its effects on workers and its remediable causes, provided the next public opportunity for Marshall to raise the issue of business fluctuations, albeit in a rather unsystematic way. After describing the 'want of employment' as a 'terrible evil', Marshall included among its causes some unpreventable ones like bad harvests; some, like wars, 'outside our scope' and some, 'like new inventions … which we should not wish to remedy' (Marshall 1885: 175–6). Remediable causes he summed up as those arising from insufficient information or from fluctuations in demand generated by changing fashions. In the context of inadequate information as a cause, Marshall was particularly anxious to remedy excessive speculation during a boom by the diffusion of sound information about the real prospects for particular investments, combining this with active moral suasion against the evils of gambling in business, or unwarranted speculation. More cautiously, he wished to establish a committee of experts to forecast industrial 'storms' and, more generally, 'trade weather' conditions, to use his metaphors. Most importantly, he desired official government publication of information on changes in the purchasing power of gold, combined with government assistance to facilitate fixed-units-of-purchasing-power contracts to safeguard the public against redistributive consequences of fluctuations in the price level, thereby removing a major source of business uncertainty (Marshall 1885: 77–81). This, together with a proposal for a more flexible Bank of England approach to normal cash reserve limits in order to steady the money market more effectively in periods of crisis, reiterated the monetary aspects underlying fluctuations in trade and employment for Marshall at this stage.

The next two years saw a concentrated effort by Marshall in emphasising remedial action to mitigate instability in activity and employment levels. The first came in the answers he provided in early 1886 to a set of questions on currency and prices circulated by the Royal Commission on the Depression of Trade and Industry. In his answers, Marshall supplied the commission with a 'law of hoarding' of metals, which related rising hoards to rising metal prices and vice-versa, behaviour based on the price expectations generated from past experience in the market. In the context of his 1879 association of price and trade fluctuations, the answers also reflected on the relative merits of price rises against price falls, in which the first were described as conducive to keeping industry better employed, while the second induced better spending habits in the working classes because 'they think themselves worse off than they are' (Marshall 1926: 9). However, steady and small price changes in either direction were much to be preferred to 'violent fluctuations of prices', the last warranting the remedy of a tabular standard of value by which to fix contracts at constant prices to remove uncertainty in transactions from changing money values, the remedy Marshall had proposed in outline in 1885. In addition, to enable greater Bank of England flexibility in cash reserve limits for stabilising credit flows, Marshall proposed a system of 'symmetallism' which, by introducing gold and silver in fixed combinations as the official reserve for the note issue, mitigated the effective currency contractions imposed by increasing world gold shortages from the early 1870s. This placed issues of price stability at the centre of the stage for mitigating business fluctuations and their associated losses of employment.

A systematic presentation of these proposals for dealing with price fluctuations as a means to stabilise trade and employment provided the contents of Marshall's first contribution to the Political Economy Club (February 1887) to which he had been elected in June 1886. The paper was published the following

March in the *Contemporary Review*. It ascribed the evils of price instability to the false signals imparted by nominal prices, particularly bad in periods of rapid price rises. In such periods, real interest rates can become very low or even negative, and real wage changes are disguised for the wage earner, imparting uncertainty to contracts and inducing perverse reactions in the credit and labour markets. Price rises generate further price rises by the encouragement they give to purchase in order to beat the expected price rises, a process facilitated by the availability of cheap credit from low real interest rates. Price rises in addition inflate profits, because wages lag behind commodity prices in the upswing, carrying further artificial stimulus to activity and employment levels. On the other hand, when prices are falling, real wages rise, encouraging reduced employment from lower production since employers, by lowering supply, help to improve the market for their own goods. Such a strategy, when universally applied, Marshall warned in full awareness of the fallacy of composition involved, diminished work for every one and destroyed everybody's market. Hence price instability cumulatively worsened fluctuations in trade and employment in both upswing and downswing. Price instability is therefore to be deplored not because it *causes* the cycle but because it greatly aggravates its adverse consequences (Marshall 1925 [1887]: 189–92). This diagnosis made it important for Marshall to press his remedy for price fluctuations through a more flexible currency regime enabled by his symmetallist proposal and, failing that, to safeguard business transactions including wage contracts from the impact of price changes by his tabular standard (indexation) proposal, thereby mitigating the excesses of the cycle.[15]

The Royal Commission on the Depression of Trade had recommended a similar form of inquiry into gold and silver prices because it had been left with unresolved monetary issues from its deliberations. This enabled Marshall to revisit the problem of price stability, employment and business fluctuations, and to sort out questions previously left in abeyance. These included the issue of money neutrality and the validity of the quantity theory of money. Together with other problems, these were canvassed in the preliminary memorandum he submitted to the commission in November 1887, on which he was questioned during the following months. Both submission and evidence show Marshall's continued adherence to the remedies for price instability he had proposed earlier that year, that is, his symmetallist proposal and tabular standard project (Marshall 1926: 30–6, 101–15) because of his continuing belief in the association between price instability and size of the amplitude of the cycle in business activity. However, his evidence looked more closely at the causes of price instability, and particularly the influence thereon of money and credit. This shows Marshall as critical of the accepted opinion on the quantity theory and on the rationale for hoarding. On the former, Marshall accepted the

> common doctrine that prices generally rise, other things being equal, in proportion to the volume of the metals which are used as currency, [but] … changes in the other things which are taken as equal are very often,

> perhaps generally, more important than the changes in the volumes of the precious metals.
>
> (Marshall 1926: 34, cf. Keynes 1971b: II, 49)

For once, these things were comprehensively listed in a document Marshall prepared for the commission, but which does not seem to have been published by it:

> The quantity theory … admits that the general level of prices is affected by many causes besides the quantity of currency. We have to take account of (i) the volume of currency; (ii) population, (iii) the amount of goods produced per head of population, and their wealth generally; (iv) the amount of business to which any given amount of wealth gives rise; (v) the proportion of these payments that are made for currency; (vi) the average rapidity of circulation of the currency (and under this head provision may be made for the locking up of money in hoards, in bank cellars, military chests, etc); (vii) the state of commercial and political confidence, enterprise, and credit; and this last head might be again divided. (The influence of cost of production shows itself in the amount of the metals available for currency purposes; and the anticipation of a change in the cost of production is among the many causes which determine the amount of hoarding.)
>
> Now, since the general level of prices is determined by all these seven elements acting together, it is quite possible that one or more of them may be tending to move general prices in one direction, while yet the net result of all the forces acting on prices is to move them in the other. I do not then regard the theory as leading us to expect that an increase in the amount of currency would always or even generally cause a rise in prices, but only that it will cause prices to be higher than they otherwise would have been if all other changes of the time had gone on as they have done, but the volume of currency had not increased. For instance, a change in the proportion of business which is done for currency may exert as great an influence on general prices as a large addition to the volume of the currency. And, if it were true that a diminution in volume of the currency immediately called forth an increased use of cheques, clearing-house certificates, etc., then, indeed, the net effect on general prices might be very slight and very slow. But there is no evidence that this is the case. On the contrary, history seems to show that the periods in which banking facilities of various kinds have increased most rapidly have been those in which the metallic currency has been increasing in volume and not those in which it has been diminishing. And when the matter is closely examined, it will, I think, be found that this historical result is just what might have been expected *a priori*.
>
> The most potent in practice, and the most troublesome in theory, of all the causes which may affect general prices are movements of general confidence, enterprise, and credit. They are the creatures of opinion. And the

> prevalence of the opinion that a fall in the gold price of silver will lower prices may certainly cause such a fall, when it occurs, to check confidence, enterprise, and credit, and may thus somewhat lower the average level of prices.
>
> (Marshall 1888: 3)

This passage shows the somewhat heterodox nature of Marshall's views on the determinants of the price level and, among other things, likewise suggests the interdependence of real and monetary phenomena necessary for understanding the complexity of any actual situation. More particularly, it suggests that the interdependence of 'general prices [and] … movements in general confidence, enterprise and credit' are the most troublesome for accepted doctrine. Furthermore, the note explains Marshall's views on hoarding, which likewise were far from conventional, and, more generally, the problems inherent in simple generalisations about the demand for money in the community. As to hoarding, Marshall categorically stated that, 'I do not admit what many people say, that anybody who hoards must be foolish, and that there are not likely to be many people foolish enough to hoard who can afford to do it' (Marshall 1926: 59).[16]

Marshall's development in his evidence of the process by which an influx of money stimulated economic activity by an initial reduction of the discount rate, and how this gradually raised prices, and subsequently the discount rate, is too well known to need discussion here (see Marshall 1926: e.g. 49–52; Eshag 1963: 8–12; Bridel 1987: 36–44; Laidler 1990: 48–50). Features of this analysis which do need some stress are two, both dealing with what Marshall saw as the long-run, 'permanent' outcomes of this process. First, 'the average rate of discount permanently is determined by the average level of interest rates in my opinion, and that is determined exclusively by the profitability of business, gold and silver merely acting as counters with regard to it' (Marshall 1926: 41, cf. 51–2). Second, Marshall was very coy about admitting a proportional impact on prices from a change in the quantity of money, because the other things which needed to be kept equal, were never equal. Anticipating Friedman's helicopters, Marshall indicated that only if 'a postman could go round and distribute to everybody the increased currency straight off, then I think that would *in a primitive state of society* act upon prices directly' (Marshall 1926: 45, my italics).

Marshall's reference to a 'primitive society' in this context suggests the credit cycle was for him a historically relative phenomenon, implicitly applicable only to advanced industrial societies with developed credit systems. Such relativity is also explicitly ascribed to the phenomenon of unemployment which Marshall associated with a specific stage of industrial development (Marshall 1926: 92–3). Earlier (Marshall and Marshall 1879: 155), attention had been drawn to the different impact of falling prices during a trade depression on the self-employed operating without large capital investments and modern manufacturing, foreshadowing to some extent the contrasts between cooperative production and modern industry made by Robertson and Keynes during the

1920s and 1930s (discussed in the next section). Unemployment was also associated with falling prices by Marshall, because such a climate increased business risks, hence plant closures, as compared to periods when prices were rising. However, previous situations of rising prices eventually worsened the situation by attracting less skilled persons into business, and reducing incentives to productive improvements which a more competitive business climate provided. Hence rising prices created the potential for subsequent business failure on a larger scale, particularly when this trend was reversed and prices started to fall (Marshall 1926: 90–2). In this evidence Marshall also associated unemployment with the credit cycle via the price instability this generated.

The *Final Report* of the Royal Commission on Labour, with which Marshall was associated as one of its members, addressed irregularity of employment as part of its final review of the evidence. This review is interesting because Marshall privately claimed to have substantially prepared this section of the report himself,[17] even though, as with all such publications, it had ultimately to be seen as a jointly authored product. The report described three types of irregular employment: that associated with industrial fluctuations, or cyclical unemployment; chronic excess labour supply within a particular industry, or structural unemployment; and 'ordinary vicissitudes of work in a normal state of trade', or seasonal unemployment (Royal Commission on Labour 1894: 73). Only the first is of interest in the context of this chapter.

The discussion of the causes of trade fluctuations in the report reminds one greatly of Marshall's 1879 discussion and its subsequent developments. The state of credit is signalled as a major cause; fluctuations in foreign trade are similarly identified, as are sudden shocks to demand from wars, crop failures and the imposition of new tariff barriers abroad. Industries most adversely affected by such fluctuations are in the capital goods sector, especially in shipbuilding, iron and steel, and coal; but the effects of such fluctuations are rapidly transmitted to other sectors of industry. Sudden changes in fashions (recall Marshall 1885) are also given some prominence (Royal Commission on Labour 1894: 174). Remedies for the problem likewise reflect Marshall's earlier thinking. Public provision of better information, including labour registries, is the major set of remedies. Public employment, except for highly productive purposes, was firmly rejected by the commission, as was, not surprisingly, the 'socialist' solution of organising all production and employment on collectivist lines.[18] Equally unsurprisingly, the commission therefore went no further in its recommendations on the subject than to suggest that consideration should be given to preparation of a counter-cyclical productive public works programme in which the Labour Department could give assistance (Royal Commission on Labour 1894: 103).[19]

Given his lack of appreciation of the principle of effective demand, support for such policies did not make Marshall a Keynesian. This is very strikingly illustrated by Marshall's questioning when fellow Labour Commissioner Tom Mann was in the witness box. This dealt with surplus population, the demand for labour and general demand in the economy as a whole. In a series of questions on whether reduced hours of work would raise employment and eliminate surplus population, the effects of this on aggregate demand were discussed, given the increased purchasing power additional employment would generate. When Mann initially admitted that this additional purchasing power for workers came from diminished profits, interest and rent as well as from 'more efficient production' (Q. 3,275), Marshall chose to describe this process not as an increase in demand but as a mere transfer of purchasing power, refusing to allow that some increase in demand could arise from new production inspired by the additional demand from newly employed workers. This exchange[20] shows how much Marshall remained entrapped in the consequences of Say's Law as he saw them (cf. Keynes 1973: 258). In his mind, there was no prospect of additional demand from the increased employment through reduced working hours, because this created no new output.

Marshall's analysis in the final chapter of the *Principles*, on progress, substantially added from the fifth edition of 1907, briefly reiterated these views from his decades of thinking on fluctuations, price instability, unemployment and standards of comfort.

A note on the lower wages following the introduction of the eight-hour day in Australia (Marshall 1961: 701, n1, dating in part from material included in the 1895 third edition) indicates that some of these wage effects arose from 'an over-sanguine estimate of the economic efficiency of short hours of labour' as well as from 'reckless inflation of credit' and a 'series of droughts'. This was perhaps a softening of his earlier denial of the possibility of such efficiency gains when questioning Mann. The chapter also discussed the effects of price instability on wages, in which matters of industrial fluctuations were raised on lines resembling his earlier views, already reported.

Since the subject is raised in the context of a discussion of standardised wage levels (the 'common rule', as contemporary practice described it), Marshall's introductory comments link excessive wage growth and increased employment at such wage levels to a credit inflation. 'But very soon the inflation of credit subsides, and is followed by depression; prices fall, and the purchasing power of money rises; the real value of labour falls, and its money value falls faster' (Marshall 1961: 709). Substantial numbers of the labourers hired during the boom are dismissed, 'production is checked … thereby checking the demand of other branches of industry'. Marshall blamed overpayment of wages relative to the efficiency of those hired, a consequence of trade union policy on 'standardised wages'. This exacerbated the employment effects of the cycle. Better adjustment of wages to efficiency levels, that is, a more flexible trade union attitude to the standardisation of wages, mitigates the problem. Marshall asserted by way of concluding this section on unemployment and wages that

> The only effective remedy for unemployment is a continuous adjustment of means to ends, in such a way that credit can be based on the solid foundation of fairly accurate forecasts; and that reckless inflation of credit – the chief cause of all economic malaise – may be kept within narrower limits.
> (Marshall 1961: 710)[21]

The section itself concludes with the statement that want of confidence can effectively break the Say's Law (Mill's 'principle') nexus between production and demand, by inducing some people to refrain from exercising their power to purchase, particularly in the financing of investment. Gradual revival of confidence, generally beginning in the consumer goods section, spreads cumulatively to all sectors, including eventually the capital goods sector, and a new upswing of activity gets underway. A footnote attacking under-consumptionist thought (Marshall 1961: 711, n1) argues that 'in times of depression the disorganisation of consumption is a contributory cause to the continuance of the disorganisation of credit and production. But a remedy is not to be got by a study of consumption, as has been alleged by some hasty writers'. Admitting the cycle was a real and recurring phenomenon, associated with shifts in confidence, credit policy and the organisation of production, was as far as Marshall ventured in his *Principles*, though this, he also reminded readers (Marshall 1961: 710), was not the place to argue the matter in detail.

The matter was in fact never fully argued by Marshall. Book IV of *Money, Credit and Commerce* (1923), which promised to deal with business fluctuations and unemployment in a systematic way, never did so and in general failed to transcend Marshall's work on these subjects from earlier decades. In fact, much of its content reproduced such earlier work and Marshall himself may have had little to do with part of its composition (cf. Groenewegen 1995: ch. 19). A single innovation in its contents is the emphasis given to the internationalisation of the phenomenon (Marshall 1923: 251–3, cf. 236). For Marshall, the topic remained therefore among many items of unfinished business in economics. Notes on the subject preserved in the Marshall Archive suggest that what would have been written in the book, had Marshall had the mental power to do so, would have derived from the work of some of his students, rather than have inspired them.[22]

The discussion in this section portrays Marshall's concern with the monetary economy in some of his published writings concerning the credit cycle, particularly in connection with the associated problems of price fluctuations and unemployment. Some special features of this, admittedly incomplete, analysis need to be highlighted. Over the short run, money is seen as not neutral, and fluctuations in its value over the course of the credit cycle affect decision-making by entrepreneurs with respect to investment and employment, often in an exaggerated manner, because of the misleading information such changes in the value of money help to convey. Hence short run in the monetary context appears to be different from that with respect to supply. Moreover, as Goodwin (1982: 17) recalled, for Marshall 'the short period is very much shorter for expansions than for contractions'. Greater price stability, Marshall argued, will mitigate the amplitude in output and employment fluctuations over the cycle, and is therefore a policy target to be aimed at, either to be achieved through appropriate flexible monetary policy or, if this fails, by securing a facility for fixed real price contracts through the indexation mechanism of a tabular standard. The cycle itself is not a purely monetary phenomenon; but its amplitude is exacerbated by credit fluctuations. Its causes derive from a variety of real factors, which provide sudden shocks to the system (harvest failures, war, and so on). Moreover, the credit cycle, and the associated 'irregularity' of employment, are phenomena only observable in advanced industrial societies, operating via the profit motive and in a framework where decisions to produce and offer employment are made by individual entrepreneurs. These features of the credit cycle, as can now be shown, were part of Marshall's legacy on the subject to some of his Cambridge students.

## The monetary economy in Robertson and Keynes

The works of Marshall's students of specific concern to this chapter are as follows. The first are Dennis Robertson's *A Study of Industrial Fluctuations* and its sequel, *Banking Policy and the Price Level*; the second are Keynes' *Treatise of Money* and aspects of the transition therefrom, as indicated by early surviving drafts of *The General Theory* (Robertson 1915; 1949; Keynes 1971b; 1979). The focus of this discussion is not a reinterpretation of these substantial and difficult works; it is merely to examine their contents with respect to the assumptions they make about the nature of the economic system they deal with when analysing the credit cycle and, in that context, to examine remarks made about the appropriateness of price stability and its association with securing output growth and increased employment. This will enable some demonstration of the use these authors made of this aspect of Marshall's legacy.[23]

Robertson's *Industrial Fluctuations* presents a theory of the general trade cycle in combination with a discussion of output fluctuations in individual industries. Its emphasis is on real factors, organised in true Marshallian fashion around phenomena of supply and demand in the latter, and to a lesser extent even in the former.[24] The discussion of general trade fluctuations is likewise conducted on some rather specific assumptions. Robertson's starting point is to abstract from 'the existence in modern industry of a monetary mechanism and a system of wage labour' (Robertson 1915: 121), thereby explicitly recognising the association between the phenomenon of cycles and these essential features of modern industrial society. Elsewhere, the book argues that some of its argument does not depend on the 'existence of a monetary economy' (Robertson 1915: 13, n1), a strategy designed to stress the real considerations in cycle theory relating to the role of investment, and to deny the proposition advanced by others that cycles were essentially a monetary phenomenon (Robertson 1915: 211–12).

Towards the end of the book, these assumptions are relaxed (Robertson 1915: 206). Introducing the capitalist entrepreneur into the argument produces the result that the scale of production is likely to be smaller when such entrepreneurs make the decisions (as compared with the outcomes of the decision-making process by cooperative units of workers) and that, in addition, there is an asymmetry in the control which entrepreneurs exercise over their workers' labour effort. They cannot easily make them work harder but they can prevent them from obtaining employment through their control over the means of production (Robertson 1915: 209–11). Likewise, a monetary system enhances the amplitude of the cycle. In the boom, an influx of money comes via the banking system and in the first instance increases the financial resources of entrepreneurs; the fact that money wages lag behind prices at this stage ('now so generally admitted as scarcely to require detailed illustration' [Robertson 1915: 215]) further pushes resources into entrepreneurial hands, hence encouraging strong, if not excessive, investment. During the weeks or months of crisis, tight money, caused by greater demand for money balances to accommodate higher prices combined with a need to finance higher wage bills – although accompanied by higher discount rates and sometimes a refusal to give credit on any terms – makes its influence felt on economic activity in two ways. The first and less conspicuous effect is its tendency to lower prices, particularly for manufactured consumer goods. A second 'and more dramatic effect' is curtailment of customary business credit for financing current operations, inducing a general restriction of production with different impacts on different industries.[25] The subsequent period of depression generates more falling prices, assisted by currency changes and an increased flow of goods for sale as firms try to gain cash flow. These falling prices redistribute income from profits to wages, thereby reinforcing entrepreneurial incentives to restrict output and employment.

Robertson's theory is critical of Marshall's on a number of points (for example, Robertson 1915: 226, n3, 228) but more importantly, it is critical of Marshall's policy preference in the context of business fluctuations: the desirability of stable prices to improve business decision-making and avoid the extremities of outcomes during boom, crisis and depression. Robertson (1915: 243, 244), to the contrary, explicitly argues that 'it is by no means clear that steadiness of prices is desirable' or that 'a stable market [can] be secured by means of a stable price [level]'. In fact, on his argument about the nature of the cycle, price rises are vital for securing an investment boom in essential construction goods, so that a little inflation has to be seen as a good thing.[26]

A decade after the publication of *Industrial Fluctuations*, Robertson (1949) returned to the analysis of the subject, giving greater emphasis to issues of banking policy and monetary aspects of the cycle. The new book repeated his criticism of conventional thinking on stabilisation policy objectives (output stability via price stability) on the ground that both some inflation and some output instability was essential for satisfactory long-term economic development (*ibid.*: viii, 26, 31, 32). The very sophisticated and complex arguments on saving-investment and banking policy (chs 5, 6) need not be gone into in any detail. The point to stress for the purpose of this argument is that Robertson maintained the method of dealing explicitly with conditions pertaining to a monetary economy and that, from the point of view of comprehensively analysing fluctuations in output and prices, that monetary economy needed to be a capitalist, entrepreneurial economy as well (ix, x, 19). This is not surprising, since the bulk of the new book was an explicit restatement of the older one (5), though the restated analysis was considerably condensed and sharpened.

In his discussion of the assumptions, Robertson indicated that, in a capitalist system, optimum output is an ambiguous term since worker and entrepreneurial preferences may vary as to their desired output levels. Second, reactions of the monetary system to output/productivity changes imply various possible outcomes, of which price rises are preferred by Robertson because they provide a more direct stimulus to output growth than falling or stable prices. By its reactions to real changes such as a rise in productivity in a particular industry, the monetary system therefore influences price, output and employment outcomes. Since output fluctuations are exaggerated under conditions of modern industry, which tend to be capital-intensive, the role of the modern banking system in capital formation needs to be carefully explored in any realistic analysis of output fluctuations. Price level changes, to put it in another way, are essential to bring saving and investment into the necessary relationship required by output growth, a result difficult to attain when price changes in themselves alter the needs for capital and saving in a monetary economy. The last point is explained as follows. Price rises entail positive investment in circulating capital to preserve its real value; price rises induce a lengthening of the period of production by making the holding of stocks more attractive, hence requiring more investment. Moreover, the additional demand for finished output which stock building implies, generates capacity constraints and hence a desire for investment to increase productive capacity. Monetary factors therefore intertwine with the real mechanisms, disturbing the balance between saving and investment and generating output fluctuations as investment and savings in turn exceed each other. Cyclical fluctuations are in this way part and parcel of the monetary economy organised on modern, capitalist lines. The impossibility of a banking system to provide industry with the 'right quantity of circulating capital and also to keep the price level unchanged' was the novel proposition of the analysis, as was the argument that when the necessary price changes are admitted, these changes induce 'stresses which are *not* beneficial' (D. H. Robertson to Keynes, May 1925, in Keynes 1971c: 32–3).

The association between price level and output fluctuations and their impact on saving and investment is another way of presenting the novel part in Robertson's analysis and the one that Keynes particularly admired at the time they discussed the book during the proof stages. Some of it 'is very interesting and new and important' Keynes wrote to Lydia Lopokova in May 1925 (Hill and Keynes 1989: 332), though it had taken time and considerable argument for Keynes to reach that position on his friend's book.[27] Over the subsequent years, that initial reaction altered somewhat. In the *Treatise* (Keynes 1971b: I, 293–302) and not long thereafter (Keynes to Robertson, 6 October 1931, 22 March 1932, in Keynes 1971c: 272–3, 275–89) Keynes became rather more critical of aspects of what he had called 'Dennis's egg', though nevertheless continuing to appreciate its pioneering contributions on the subject (Keynes 1971b: I, 171–5; II, 101).

Despite this fact, much of the analysis of the credit cycle in the *Treatise* resembles Robertson's analysis in *Banking Policy and the Price Level*, although there are differences in emphasis and in theoretical apparatus. Profit inflation, from wages (and other costs) lagging behind prices over part of the boom, plays a crucial role in Keynes' story, though there is less emphasis on 'forced savings' than in Robertson's account. The natural rate of interest is therefore also given greater emphasis relative to the rate of discount, reflecting disparities between investment and saving which, on the basis of the fundamental equations, explain the existence or absence of a profit inflation. Price level variations are thereby linked to output and employment variations via profit effects and savings/investment imbalances (Keynes 1971b: esp. chs 18–20). Many of these elements, it may be recalled, were present in Marshall's account of the credit cycle, though not in a systematically developed argument.

The analysis of the *Treatise* likewise relied in general on the existence of a modern capitalist society, characterised by enterprise and a modern monetary system essential for its operations. This is most strikingly demonstrated at the start of Keynes' historical illustration of the *Treatise* theory, where enterprise is seen as crucial, and is linked directly to 'expectations of profit' combined with the ability of entrepreneurs to gain access to the resources necessary for them to be able to exploit the situation. The last, Keynes argued, 'almost entirely depends on the behaviour of the banking and the monetary system' (Keynes 1971b: II, 149). The links in the theoretical system of the credit cycle are also clearly explained. Increased output depends on adequate working capital; output rapidly contracts if there is surplus liquid capital. 'An important factor of instability is thus introduced into our economic life', from the fact that industry is 'extraordinarily sensitive to any excess or deficiency … in the flow of available output ready to be fed back into the productive process'. If this flow is deficient, the means to full employment are absent; if it is in excess, the incentive to full employment is lacking. Price changes, by their impact on saving and investment, both have the ability to restore equilibrium and to explain the violence and rapidity of the slump or boom (Keynes 1971b: II, 146–7, cf. I, 277–92, 302–4).

An American lecture given in 1932 put the matter even more simply. Profits arise from the difference between sales proceeds and costs. Costs are factor payments, that is, wages, salaries, interest and rent, forms of income which are either spent on consumption or saved. Sales proceeds arise from spending on consumption goods and capital goods, that is, consumption and investment. Hence investment greater than saving, the equivalent of sales proceeds exceeding costs, raises profits to stimulate activity cumulatively. A slump arises when savings are greater than investment. This process also affects the prices of commodities, often differentially, so that comparisons of commodity inflation, income inflation and profit inflation are crucial parts of the overall analysis (Keynes 1971c: 352–3).

Keynes' development of these ideas increasingly brought him into conflict with Robertson, as is shown by their correspondence during the debates following publication of the *Treatise*. The manner in which this controversy gradually became enmeshed in definitional squabbles over saving and hoarding is not relevant to the discussion of this chapter. However, it coincided with Keynes' development of a new book, drafts and outlines of which are extant from early 1932 and in which, initially, Keynes grappled with the notion of a monetary, enterprise economy, as the proper setting for a monetary theory of production and employment. From this, *The General Theory of Employment, Interest and Money* gradually emerged. Evaluating Keynes' arguments on the relevance of such institutional foundations for explaining price and employment fluctuations in this preparatory material, forms a fitting conclusion to this exploration of the development of this aspect of the Marshallian legacy by Robertson and Keynes.

Early draft tables of contents for *The General Theory* highlight the importance of the institutional facets of the problem in Keynes' thinking in the aftermath of the *Treatise*. The earliest draft preserved is entitled 'The Monetary Theory of Production' and, in its introductory definitional book, clearly intended to deal with the importance of the 'profit' economy to explain investment, expenditure and output, adding a historical retrospect critical of the 'classical' or 'orthodox' view of the subject. A subsequent 1932 draft gave the title of 'The Monetary Theory of Production' to Book II (Book I is simply called 'Introduction', and was presumably intended to be brief). Its contents replicate the analysis of the 'profit' economy of the previous draft (Keynes 1979: 49–50). A year later, a new preserved outline changed the title of the book to 'The Monetary Theory of Employment', with Chapter 1 now to be devoted to 'the Nature and Significance of a Monetary Economy' (with all explicit references to the 'profit' economy deleted from chapter headings but not from the argument – Keynes 1979: 62–8). A subsequent outline, now called 'The General Theory of Employment', starts with chapters developing the nature and significance of the contrast between a cooperative and an entrepreneurial economy, as well as a discussion of the characteristics of the latter.[28] By December 1933, a new draft outline still stressed the distinction between cooperative and entrepreneurial economy as an important distinction between the 'classical' and the 'general' theory of economics (Keynes 1971c: 421) but by mid-1934 the emphasis is explicitly removed from the chapter headings, though it may have been at that stage still intended to be part of the subject matter of the opening chapter, simply called the *General Theory of Employment, Interest and Money* (Keynes 1971c: 423). The published version of the book (Keynes [1936] 1973) retained only few explicit references to the subject of 'non-monetary', 'monetary', economy apart from the general remarks on the subject in the preface, to which attention was drawn in the opening sentence of this chapter. However, the non-neutrality of money obviously remains an important part of the story.

What were the characteristics of this distinction which Keynes thought so important in the initial stages of preparing *The General Theory* from the argument contained in the *Treatise*? The starting point was the importance of the 'profit' economy with money profits (cash flow?), a crucial attribute of a contemporary entrepreneurial economy. Much of this perspective came from the *Treatise*, though there was a shift from emphasising its association with price levels to stressing impacts on output and employment as clues to the inherent instability of the 'profit' economy (Keynes 1973: 381–9, written *c.*1932; 1979: 511–17, dated 10 October 1932 and 14 November 1932 respectively). The later drafts concentrate on the distinction between effective labour supply price flexibility and capital supply price behaviour, associated by Keynes with the distinction between Pigou's 'real-wage' economy and the monetary (entrepreneurial?) economy in which money rewards dominate markets and decisions. At this stage (14 November 1932), Keynes also associated these distinctions with short- and long-period positions, toying with the notion of describing the 'classical' (Marshall and Pigou) theory as a '*special case*, i.e. with a long-period position corresponding … to a *particular* assumed policy on the part of the monetary authority' (Keynes 1979: 54–5). By the end of 1932, these notions were therefore still in a considerable state of flux in Keynes' thinking about what constituted a more general theory.

By 1933, 'monetary', 'entrepreneur' ('profit') economies still dominated the analysis. 'Barter economy', perhaps better described, Keynes argued, as a 'real-wage' or cooperative economy, was now associated with Ricardo and Marshall and argued to be essentially 'neutral money economies', that is, attempts to deal 'with an entrepreneurial economy which is made to behave in the same way as a co-operative economy' (Keynes 1979: 63–8). By the end of 1933, these notions continued to be explored, with the classical perspective still identified with a real reward, 'real-wage' economy, or with the 'neutral money' approach in which money operated as a very useful medium of exchange but with no special qualities which defined its 'moneyness'. At this stage, the neutral money economy of the 'classics' (Ricardo and Marshall) is also linked explicitly to Say's Law. In addition, the distinction between cooperative and entrepreneurial economy is described as bearing some relation to 'pregnant' observations of Marx[29] (Keynes 1979: 76–83). By then, Keynes had also produced his well known contribution for the Spiethoff *Festschrift* on the monetary theory of production which, interestingly for the purpose of this chapter, ascribes the neutral monetary position explicitly to Marshall's *Principles* via his assumption of holding the purchasing power of money constant for the purpose of its analysis[30] (Keynes 1971c: 408–11). Reflecting the outlines of *The General Theory* for these years, Keynes' Michaelmas lectures for 1932 and 1933 are titled 'The Monetary Theory of Production' instead of 'The Pure Theory of Money', the title they had for 1929–30 (Keynes 1971c: 411).

The characteristics of the entrepreneur economy are given further detailed discussion in a draft chapter associated with the outline for the end of 1933. Firms (entrepreneurs) organise production, leasing fixed capital and hiring labour, but financing their own working capital, one of the reasons they need to be able to sell output as quickly as possible for cash to maintain their levels of operation. Investment (leasing of fixed capital) depends on expected cash flow – Keynes called this the primary entrepreneurial decision – only then will it be decided how much employment is offered, the second entrepreneurial decision. Classical theory, which concentrates on the individual firm, looks at the competitive process by which firms try to minimise capital and labour costs and attempt to gain the largest possible market share for selling their output. They ignore the aggregate consequences of the process, depending on aggregate costs, aggregate expenditures, and the potential for employment fluctuations when these aggregates fluctuate. Alternatively, the classical economists have invented procedures ('aggregate expenditures and aggregate costs always keep step'; 'chance causes operating to keep employment below full employment are counteracted' [Keynes 1979: 91]), which effectively turn an 'entrepreneur' (money) economy into a cooperative economy. Hoarding is one way by which the neutral, cooperative economy is disturbed. More importantly, aggregate costs and expenditures do not necessarily keep in step for labour and capital market reasons. Expected proceeds relative to costs based on real wages and capital costs determine the employment level, not real wages by themselves. A non-neutral economy becomes the economy based on effective demand. By assuming a cooperative or neutral economy, the classical theory assumes automatic full employment. It has no room for the 'failure of organising' which leaves 'the marginal utility of output … greater than the marginal utility of effort', that is, the situation of 'chronic unemployment' (Keynes 1979: 97–9, 101–2). This is the manner in which the matter was ultimately presented in the opening chapters of *The General Theory*. The characteristics of the monetary economy were kept to a more special place in Chapter 17, which defined the essential properties of interest and money, the theoretical foundation for the monetary theory of interest which, via its role in determining investment, sets limits to the level of employment (Keynes 1973: 3–39, 222–40).

The critique of classical economics (Ricardo, Marshall and Pigou) is therefore set initially in an institutional framework dealing with the modern, monetary enterprise economy, though the characteristics of that economy were not firmly established until relatively late in the construction of Keynes' book, and then really only discussed in the chapters on the classical postulates, on the essential properties of interest and money and in the subsequent chapters dealing with wages, prices and the quantity theory of money. Only then was money presented as the crucial 'link between the present and future' (Keynes 1973: 193–4) and are there references to the different possibilities for a free enterprise economy as compared with 'command' economies or socialist regimes (*ibid.*: 267, 269). The notion of the monetary, enterprise economy was therefore gradually absorbed into the new theory, and in the process these matters lost the sharpness of new discovery which Keynes intended to give them at first.

Post-*The General Theory* correspondence with Dennis Robertson indicates that the road Keynes travelled to his *General Theory* started from the discussions over *Banking Policy and the Price Level*, but that Keynes could never accept that 'Marshall related it all to the Royal Commission in an affirmative sigh, that it had been well known to Pigou for years past and is to be found in a footnote to *Industrial Fluctuations*' (Keynes 1971d: 94).[31] But remnants stayed. The impossibility of perfect price stability 'in an economy subject to change' (Keynes 1973: 218) is straight Dennis Robertson, just as the asymmetry in periods of deflation and inflation between workers in relation to work (*ibid*.: 291) is the mirror image of Dennis Robertson's discussion of the asymmetry in the entrepreneur's control over the ability to work of the labour force. Moreover, although Keynes was quite right in not wishing to accept that Marshall had said it all, Marshall had said a great deal, and more in fact than the references to Marshall in *The General Theory* indicate, sympathetic, at least relative to Pigou, though these references may be (cf. Groenewegen 1994a: 31–4).

## Concluding comments

The conclusions which can be drawn from this account are relatively straightforward. There was a significant Marshallian heritage on the monetary economy, obfuscated though this was through the fact that the *Principles* became a volume of preliminary foundations and the companion volume on *Money, Credit and Commerce* failed to deliver anything new. The monetary aspects of Marshall's explanation of the cycle, his acceptance of the short period breach of Say's Law by the rationality he ascribed to hoarding; the ambivalent attitude to the quantity theory in the context of its stringent *ceteris paribus* clauses made a classical dichotomy difficult to sustain except as a very long-term, permanent position. Furthermore, the emphasis on the need for price stability to reduce the impact of the detrimental consequences from wrong decision-making during the cycle, together with the associated admission of real consequences from changes in prices for employment and output decisions, gave teeth to the warning the *Principles* contained about the provisional nature of its results in the absence of thorough treatment of monetary, credit and other factors not dealt with between its covers. These all point to Marshall's awareness of the importance of the monetary economy and its special problems. However, as was also clearly stated in the first part of this chapter, little of this material was ever systematically elaborated, and even if it had been, it was certain to have stopped far short of the theoretical position Keynes eventually reached in *The General Theory*.

That position had its own ambiguities and shortcomings, some partly induced by the compromises with the old doctrine that some of his friends managed to persuade him to include over the four years the book was in preparation. Was this the case with the reduced explicit emphasis the monetary economy received in the final published version as compared with its promised treatment foreshadowed in the early tables of contents which survive? Preserved correspondence sheds little light on the process by which these aspects of the theoretical revolution Keynes wanted to make were dethroned from their initial pre-eminence, to resurface more obliquely in later chapters after receiving only faint recognition in the chapters of the introductory book. Yet, for many, the implications of the monetary, enterprise economy, for full employment and price stability, are what *The General Theory* is all about. This provides the real climate for the problems which Keynes sought to address by a drastic revision of the old theory. It was a path which Alfred Marshall, his 'old master', and some of his later Cambridge colleagues had also attempted to take. The extent to which Keynes was aware of these attempts during the early 1930s is perhaps one explanation for the background treatment *The General Theory* accorded this matter. Irrespective of this, a historical account of the Cambridge perspective on the nature of modern, monetary society assists to illuminate this aspect of the development of *The General Theory* and the role played therein by Robertson's work of the 1920s. It likewise further clarified the ambiguous Marshallian roots in this process.

The above also enables some brief observations on more contemporary matters. Marshall's anti-inflation and pro-price stability stance, as the way for eliminating unemployment and cyclical instability, has returned to favour, especially in central banking circles. Dangers in such a policy of inflation to which the young Robertson was first particularly alert, continue to be worth stressing. Likewise, the Marshallian perspective embodies elements signalled as important by the 'New Keynesians': frictions in the system, lapses from competition, the importance of good information, the hysteresis involved in groping for new equilibrium states. In this sense, the chapter shows how easily the old is reborn in modern, more sophisticated dress, and that new Keynesianism is nothing more than yet another manifestation of what Joan Robinson described as pre-Keynesian theory after Keynes.

## Notes

1 In the preparation of this chapter, financial assistance from the Australian Research Council is gratefully acknowledged. In revising an earlier draft, I have been assisted with comments from Tony Aspromourgos, Robert Clower, Don Patinkin and Matthew Smith. I thank them for the suggested improvements; the remaining mistakes are my own.
2 For a detailed account of the Marshallian project, see Whitaker (1990) and Groenewegen (1995: chs 12, 19).
3 Others include Davidson (1972).
4 Milton Friedman's (1953: esp. 65–8) famous reading of the Marshallian demand curve is perhaps the most well known example of such a restrictive misreading of Marshall's *Principles*; Pigou (1952: 163; 1927 esp. 118–21; 1949) happily sinned in this matter as well.
5 The second sentence of this quote from Negishi seems too strong. It should have been qualified to a statement reading something like this: 'though there is a tendency by Marshall for the purchasing power of money to be held constant in the preliminary treatment of relative prices as part of the generally useful method of partial equilibrium involving *ceteris paribus* abstraction'. In correspondence Patinkin has described the form of abstraction in the text (determining relative prices on the assumption of constancy in the price level) as the 'valid dichotomy', describing this as his own practice, shared with Friedman and Pigou in the references cited in the previous note. My reading of Marshall suggests that he thought this abstraction could never be valid for any realistic analysis of relative price changes.
6 Some examples are Kregel (1992), which shows that parts of Marshall's temporary market equilibrium analysis are identical to Walras' theory; Eatwell and Milgate (1983), which demonstrates the problems in attributing an inflexible price assumption as underpinning Keynes' theoretical position in *The General Theory*, and see Marshall's version of Walras' analysis of *service d'approvisionnement*.

7 On the frontispiece of Marshall (1919), but on its general importance in his mature thinking, see his letter to Edgeworth, 17 April 1909 (in Pigou 1925: 442) and Marshall to A. L. Bowley, 21 January 1901 (*ibid.*: 421).

8 Layton's lecture notes from Marshall's class in October term 1904 (Trinity College, Cambridge, Layton Papers, Box 15) include a diagram which indicates the various phases of the cycle as summarised by Lord Overstone (1847: 31). A similar diagram in Marshall's hand is preserved in the Marshall Archive (Red Box 2(5)).

9 Marshall's copy of the People's Edition of Mill (1865) is preserved in Cambridge University Library, d.62.

10 In particular Mill (1865: Book III, chs XII–XIV, XXIII–XIV). Marshall was initially rather sceptical of Mill's denials of the possibility of over-production, juxtaposing it with contrary authorities including an extract from the Springfield *Republican* (undated) on 'overproduction' pasted adjacent to Mill (1865: 337) and a quote from Sargant (1867: 50–5) which, contrary to Mill and Fawcett, concluded that 'overproduction is possible', and written adjacent to Mill (1865: 338).

11 Marshall's analysis of the credit cycle in *Economics of Industry* also drew on Bagehot (1962: ch. 6) and Overstone (1847) from which Marshall quoted the description of the phases of the cycle (Marshall and Marshall 1879: 153).

12 Marshall frequently quoted extracts from this account in later years, for example in his evidence to the Royal Commission on the Depression of Trade (Marshall 1926: 7–9), the *Principles* (Marshall 1961: 710–11, a passage which dates from the fifth edition); *Money, Credit and Commerce* (Marshall 1923: 249–51). Only in 1886, that is, well before completing the *Principles*, did Marshall indicate explicitly that he adhered almost totally to what he had written in 1879 (Marshall 1926: 9), implying less complete acceptance of the 1879 argument at later stages.

13 Eshag (1963: 78 and n38) suggests that Marshall later modified his adoption of this point from Bagehot (1962: 70–3) by listing other potential factors for starting a credit upswing such as 'war or rumours of war' and 'the opening out of promising new enterprises', points which he derived from Giffen's (1877) critique of Bagehot's account.

14 Eshag (1963), for example, although exhaustively referring to Marshall's relevant writings on fluctuations, fails to draw attention to their chronological development with respect to specific ideas and concepts. Laidler (1990: 60–1) draws attention to some improvements to Marshall's 1879 account made in later work, including the *Principles*. The quotation from Marshall and Marshall (1879) in the text was reproduced by Keynes (1973: 19), whose attention had been drawn to it by Joan Robinson (*ibid.*: 79 and n1).

15 Marshall had to defend the second proposal in the letter columns of the *Economist* (5, 12 March 1887: 302, 307) and against the onslaught of Giffen, who thundered against fancy monetary standards in the pages of the *Economic Journal* (Giffen 1892). A full discussion is in Groenewegen (1995: ch. 11, 350–1). Marshall defended the first proposal in evidence before the Royal Commission on the Values of Gold and Silver, as shown below.

16 Marshall justified this belief by the example that potential 'precautionary' demand for money balances could absorb nearly the whole of the British gold stock, assuming only a small per capita balance of £10 for this purpose (though this was 27.5 per cent of average per capita income as he had estimated it in Marshall 1885: 77). In addition he based it on evidence drawn from Tooke and Newmarch's *History of Prices* (1857), which pointed to the enormous amount of dishoarding which was disclosed in Britain during the run-up to the resumption of specie payments. Marshall was a great admirer of Tooke, and was not adverse to many conclusions from the Banking School position on money in relation to prices, as disclosed by some of his evidence (e.g. Marshall 1926: 59, 44–5).

17 Mary Paley Marshall to John Maynard Keynes, 22 March 1926, cited in Groenewegen (1994b: 286).

18 Royal Commission on Labour 1894: 77–8, 82–7. Much of this discussion about the inefficiency of public sector employment creation and the expansion of public enterprises was along the lines of Alfred Marshall's position on the subject. See Groenewegen (1995: ch. 16, 593–6) for an extensive discussion of this topic.

19 The recommendation is of sufficient interest to reproduce:

> 312. In periods of commercial depression there is always a demand that public authorities should undertake new works, whether remunerative or not. And though it is doubtless true that the community may well afford to suffer some material loss, rather than allow large numbers of the working classes to suffer the hardship and the deterioration caused by long periods of enforced idleness, yet the plan of starting new works in a hurry for the purpose must be regarded with some anxiety, on account of its wastefulness and other evils. But we think that, with a little forethought, public authorities might during more prosperous times prepare plans for works that are needed, but are not urgent; and hold them in readiness for times of depression. The information obtained by the Labour Department might prove of some value in assisting public authorities in this matter.

20 A flavour of the exchange is given by the following questions (by Marshall) and answers (by Mann), in which Mann seems to have the better perception of the dynamics of the situation, as revealed in his answer to Q. 3,300:

> 3,296. But I want to know where the particular points in that argument that I have gone on, is wrong. The working bakers get 70/- a week more, that is to say, 50 more working bakers come in and get 70/- a week and spend it in making a new demand for goods, and that 70/- comes out of the pockets of the master bakers, and they therefore have to withdraw an old demand for exactly 70/-. There is, therefore, in my view, no change in the aggregate amount. At what step is there a change? – Again, it seems to me, I must repeat what I have said, but perhaps I can put it in another form. It is the same argument that I used when I said 'If this be no point then I shall be glad to learn it'.
>
> 3,297. I want you rather to point out what fallacy there is in that particular argument because it claims to be conclusive? – I want to see human energy get to work upon the raw material to create and give value, a position of which value will come to those whose energies have been set free to engage upon it, giving them what they require, and allowing the requisite margin of profit and interest if need be, for we are under a condition of things in which profit and interest are allowed.
>
> 3,298. But we are not supposing that more bread is baked? – Oh, yes. I want to suppose that more bread is baked. I must contend that more bread would be baked because of the increased demand, which demand is made possible by the opportunities of the workers for getting into contact with the raw material. That brings it to this again, simply an improvement upon the present methods of organising industry.
>
> 3,299. But do not you see that what we are trying to find out is whether a diminution of the hours of labour would cause an increased demand? – I may say distinctly, yes, because it would improve the present organization of trade.

3,300. And what you say is, if I understand you rightly, that there would be an increased demand because there would be an increased production, that increased production being to meet the increased demand; that seems to me to be arguing in a circle? – It may, but it seems to me to be perfectly sound. For instance, if by some means I was possessed of the requisite capital and could get in contact to-day with some of the workers in the east of London, I would tell this class to make furniture, and this class to make bread and other articles of trade, and to engage in other departments of trade. I would say 'Here is the workshop accommodation, here are the tools, and I advance what is requisite for your sustenance whilst you are creating value here'. If a man was creating value to the extent of 2/- per week I would say, then surely it is advisable to get that which he had created, leaving a margin for managerial expenses. There would be a new industry created, so to speak, and not interfering with and detracting from what other people had been doing before. It would be making their latent demand an effective demand. I may say that a re-adjustment of the working hours would practically do that without taking that special step that I have suggested might be taken.

(Royal Commission on Labour 1893: 227–8)

21 An undated fragment (*c.*1895) is worth quoting in this context:

to attribute this social malaise [of business failures] to the fall of prices, instead of to the previous and morbid inflation, which caused it, is as reasonable as to attribute the headaches which follow a night of feasting and rioting to want of sufficiently nourishing breakfast, instead of to the bad condition of the digestive organs that took away the appetite for breakfast.

(Marshall Library, Marshall Archive [Red Box 2(3) Money])

22 Notes in Red Box 2(5) on 'Fluctuations Developing into Crises', comment on Robertson (1915): 'make large use of Dennis Robertson. Probably quote from him' (dated 14 August 1920). Notes on wage fluctuations prepared in October 1909 drew on early work by Walter Layton. Marshall's comments on Robertson are used in the next section of the chapter (note 24 below).

23 The intellectual cooperation between Keynes and Robertson at this time is well known, as is its breakdown after the publication of *The General Theory*. See, for example, Presley (1978: 75–84); Mizen and Presley (1994); Kahn (1984: 61–4) and the correspondence between Keynes and Lydia Lopokova (Hill and Keynes 1989: esp. 325, 327, 332, 333).

24 In his annotations on Robertson (1915) entitled 'Robertson and Aftalion' (18 March 1920), Marshall noted with pleasure Robertson's comment that 'my method is the right one'. The notes peter out at 23–7, that is after about 10 per cent of Robertson's book. Presley notes that on 20 September 1920 Marshall wrote to Robertson 'that he often used his Study in this preparation of *Money, Credit and Commerce*' (Presley 1978: 83 and n65), a misleading statement on Marshall's part to say the least, given the state of Marshall's notes on the subject and the peculiarities in the writing of his last book noted earlier. In his 1915 book, Robertson's use of Marshall was confined to the *Principles* and his evidence to the Gold and Silver Commission (1888), excluding therefore the account of the cycle given in *Economics of Industry*, by then successfully 'suppressed'.

25 Tight money, Robertson argues (1915: 221–2), for example, advantages industries using raw materials traded in highly organised, speculative markets.

26 Robertson (1915: 246–9) elsewhere espoused Alfred Marshall's remedies of more information, improved banking policy and emphasis on the social advantages of falling prices (rising real wage levels) during the depression phase. He (Robertson

1915: 253, n1) also supported a public works policy against the negative views of Pigou, and especially Hawtrey, arguing that in periods of depression savings are not applied to productive investment, hence denying what became known as the Treasury view, which emphasised the crowding out effects of public works. Robertson (1949: 94–6) was more cautious of endorsing a counter-cyclical public works policy because of the difficulties in getting the timing right (and cf. on this point, note 19 above).

27 See especially the exchange of letters between the two, largely during May 1925 (Keynes 1971c: 29–41).

28 This reinforces the belief that 'general' as a qualifier for 'theory' in the title of the book was designed to focus on the more realistic nature of the monetary/entrepreneurial economy analysis as compared with the more special case of the cooperative/communistic/socialist/non-monetary/real wages economy analysis which Keynes ascribed to Ricardo, Marshall and Pigou (cf. Keynes 1979: 52–5, 66–8; and see Rotheim 1981).

29 The source for the Marx reference is McCracken, *Value Theory and Business Cycles*, New York, 1933, 46, but Keynes does not seem to have pursued it beyond stating that Marx's money circuit implies a money profit economy. Had he pursued it further, he would have realised that Marx used the analysis to criticise Say's Law and 'Mill's principle', to use the name Ricardo gave Say's Law in his discussion of 'general gluts'. It seems surprising that Sraffa did not alert Keynes to this, since Sraffa would almost certainly have discussed with Keynes his own views on the essential properties of money which formed the foundation for Keynes' Chapter 17 in *The General Theory* (Keynes 1973: 222–44, esp. 223, n1 which associates some of the propositions raised with Sraffa's review of Hayek in the *Economic Journal*, March 1932). *The General Theory*, despite its sympathetic reference to Marx as a member of the economic underworld (with Gesell and Douglas), gives no credit to Marx for being an early and perceptive critic of Say's Law, far more perceptive than Malthus was on this score (Keynes 1936: 32, 355).

30 Keynes relied in this context on Marshall (1961: 61–2) without drawing attention to the provisional nature of this assumption for a 'volume of foundations' as Marshall explicitly does, nor drawing attention to the other qualifications Marshall made of this assumption, as noted at the start of this chapter.

31 This letter responded to Robertson's notes on *The General Theory* in the 1936 *Quarterly Journal of Economics* (Robertson 1936). Here note 8 at 174 refers to Pigou's *Industrial Fluctuations* as one of the several accounts indicating that a percentage increase in consumption generates a more than percentage increase in the demand for instrumental goods; 179, n2 mentions Marshall's evidence.

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# 30 Jacob Viner and the history of economic thought[1]

Jacob Viner has been described as the 'greatest authority of the age on the history of economic and social thought', with 'no equal over the range of the history of the discipline he had at his command or of his exact knowledge of bibliographic detail and in the general sweep of perspective and appraisal he brought to bear on his subject' (Robbins 1970: 6–7). Mark Blaug (1985: 256) more simply described him as the greatest historian of economic thought who ever lived. Sraffa drew on Viner's expertise on several occasions while editing the works of Ricardo, and Viner's name is recalled in countless other prefaces for the guidance and assistance he provided to scholarship over the more than fifty years he was active in academic life at Chicago and Princeton.

Viner's essays on the intellectual history of economics, which he published from 1926 until his death in 1970, are now collected in one volume (1991). They show the extent of Viner's brilliant scholarship and judgement on this subject. To illustrate Robbins' remarks already quoted, these essays range from the Greek philosophers and the fathers of the church to Hayek. They cover subjects such as mercantilism, economic freedom, utilitarianism and Augustan satire. They also show Viner's skill as an occasional lecturer to students and scholars, as writer of review articles of major studies, and also as the presenter of special addresses to commemorate the great in the subject on important anniversaries in their lives.

It should be said at the outset that wide ranging and important as this collection of essays is, it does not cover the whole of Viner's many contributions to the history of economics. For the sake of emphasising their magnitude and importance, his contributions in book form may be briefly recalled. First, there is his magnificent *Studies in the Theory of International Trade* (Viner 1937), which nurtured generations of students in the mysteries of international trade theory and the monetary analysis of the nineteenth century. Next is Viner's masterly guide and supplement to John Rae's biography of Adam Smith (Viner 1965) which its publishers printed as a separate volume, as well as the new introduction to their re-issue of this important biography of Smith. As Machlup (1972: 353) has indicated, a substantial number of items among the literary remains of Jacob Viner related to intellectual history. His Jayne Lectures on 'the role of Providence in the Social Order' (Viner 1976) were the first of these to be published; they were followed not long after by four unfinished chapters on 'Religious Thought and Economic Society' (Viner 1978), while the book under review (Viner 1991) reprints as its first part the manuscript of five lectures on 'Economics and Freedom' which Viner delivered at Wabash College in 1959. Manuscript material on British social thought from the seventeenth and eighteenth centuries remains unpublished, as do his notes and papers for miscellaneous lectures, reports and memoranda for future work and his immense card index with references to work and authors in many fields and languages (Machlup 1972: 353). His very extensive correspondence is undoubtedly a treasure trove on the history of the subject in the twentieth century, as well as for the centuries before (Winch 1981: 522–3, 525).[2]

The scope for a review article on the collection of Jacob Viner's essays in the history of economics is therefore immense. Given the contents of the volume, seven subjects at least need to be touched upon in brief sections. These are mercantilism; Adam Smith; economic freedom; utilitarianism, Bentham, Mill and Marshall; the history of economics and the economist in history; Viner as reviewer; and Viner as historian of economic thought and member of the Chicago school. The last section acts as a vehicle for offering some conclusions from reading this fascinating collection of essays and lectures. However, before looking at these topics in turn, a brief section is required to declare the interest of this reviewer in the subject matter of the review.

## I

I can honestly say that it has been one of my great regrets that I never had the opportunity of a personal meeting with Jacob Viner. His name had been introduced to me as an undergraduate at the University of Sydney in the 1950s, not just because of his major contribution on cost and supply curves, which still (directly or indirectly) is part of the diet of most economics students in the world (Bloomfield 1992: 2072–3, 2080–1), or for his famous review of Keynes' *General Theory* which sparked Keynes' fundamental (some would say 'fundamentalist') reply a year later (Bloomfield 1992: 2074–5), but because of his *Studies in the Theory of International Trade* and his material on the customs' union issue. The former became a model and bible, and was absorbed by me, in so far as that is possible, by careful examination, chapter by chapter, at an informal seminar organised with a number of fellow students of the subject, which I attended both before and after graduation. The work also sparked a youthful ambition to do for the theory of public finance what Viner had done for international trade, a misguided ambition, not because of a poor choice of model but because of gross underestimation of the magnitude of the task. More modestly, my actual postgraduate work at Sydney and London concentrated instead on seventeenth- and eighteenth-century economic thought largely from the British side of the channel, the reading for which gave me a foundation for much later work, and as a result of which I enjoyed a brief but very instructive period of correspondence with Viner.

My correspondence with Viner started in February 1965 in a letter written from the postgraduate students' common room at the London School of Economics. It raised a minor point on an aspect of Viner's *Studies in the Theory of International Trade* about the frequency of references to the Midas fable in mercantilist literature, to which, within a fortnight, I received a very kindly and encouraging note which treated my minor criticism as if it was of major significance. The nature of this response undoubtedly induced me to seek Viner's advice two years later when I was researching Smith's library catalogues and more generally, the evidence relating to his association with Turgot for articles reviewing in detail Mizuta's *Catalogue of Adam Smith's Library* (Groenewegen 1968) and the Turgot-Smith relationship (Groenewegen 1969). Viner's clear and concise responses to my questions provided me with the information sought, suggested consultation of additional references, often of an obscure but very helpful nature, and supplemented or corrected my hypotheses on these issues with data drawn from his rich files on the first English translation of Turgot's *Reflections*, the state of the holdings of Smith's library books at Belfast University, and the assumed authorship of anonymous books listed in the Smith Library catalogues. More importantly, he commented very perceptively and instructively on my first published articles, particularly the paper on Turgot and Smith, saving me from drawing both too much and too little from the evidence gathered, and suggesting how best I could present my case to show that what I had to offer was new and interesting. The long letter which gave his specific reactions to my draft, made also a number of general observations on the type of activity research of this nature implied, some of which is still of considerable interest:

> I don't think discussions of intellectual origins or filiations are inherently sterile but it is an activity which abounds in notorious hazards, and which usually cannot escape them except at the cost of arduous exploration and precise formulation of issues and findings. With an uneasy conscience because of lack of will and energy to pay these costs, I tend to stay out of such discussions except where what seem questionable claims in this area incidentally get in the way of propositions I am willing to get involved in. The issue as to what Adam Smith's intellectual debts were is an issue which I personally am not tempted to explore seriously except on a wider canvas than Smith re Turgot, or even Smith re earlier French economists at large … I have more urgent priorities.
>
> (Jacob Viner to the author, 22 June 1968)

The subsequent two pages of the single-spaced typewritten letter then addressed a number of major issues which I had got wrong or unclear in my first draft.

Like Donald Winch's correspondence with Viner on his own account (Winch 1981: 522, 523), my correspondence with Viner warmed as it grew more frequent during the final years of his life. Though I never graduated to 'dear Groenewegen', let alone 'dear Peter', but only from Mr and Dr to Professor (well before I had gained this title), our letters were increasingly accompanied by an exchange of offprints of articles associated with our current research interests. My last letter, dated 17 August 1970, a fortnight before his death, reported on my investigation of the Townsend Papers at the Australian National Library (Canberra) made on his suggestion, and was the only letter in our brief but growing correspondence to which, for obvious reasons, I received no reply. Viner's last letter to me six months previously, briefly acknowledged the offprint of 'Turgot and Adam Smith' which I had sent him and which his comments had done so much to improve. Reasons for the cessation of the correspondence became immediately clear when I received Lional Robbin's memorial tribute to Viner (Robbins 1970), which was presumably sent out to all of Viner's many correspondents to indicate the sad conclusion of this experience. However, this was no compensation for my purely selfish sentiments about regretting I would now never be able to meet the great man in the Princeton environment with which our correspondence associated him.

Despite this fruitful and informative contact by letter over a brief period, and my longer acquaintance with much of his published writing, it is difficult to say whether he was the greatest historian of economic thought, the accolade which Blaug and undoubtedly others have bestowed on him. Reflection on the subject, inspired by the need to write this review article and the opportunity it has given to revisit his work, however, suggest few other candidates for the position. The notable exception is Schumpeter, who at least matched Viner in his erudite knowledge of the subject in its various aspects. But Schumpeter's written contributions (perhaps partly because his major work on that subject was unfinished) never matched the accuracy, sensitivity of interpretation or historical finesse with which Viner presented his views. Some of the essays included in this volume under review, although half a century or more from first publication, are more accurate and profound on the subject they treat than many recent contributions on similar subjects. Hence revisiting Viner is a task not only of student homage. It is a refresher course of much material of continuing relevance on a variety of subjects, and a glorious disproof of that philistine opinion that the only things worth reading are those published within the last few years. Demonstration of this last proposition occupies the remainder of this review and emphasises my bias as reviewer of Viner's work.

## II

Mercantilism was a topic broached very thoroughly by Viner in his *Studies in the Theory of International Trade* in the chapters significantly titled 'English Theories of Foreign Trade before Adam Smith'. The topic is represented by two major essays in this volume, but its subject matter permeates many of the other essays as well, in particular the first two lectures on economics and freedom. One of these is Viner's classic article, which still finds a place on my history of economic thought reading list, on 'Power versus Plenty as Objectives in Foreign

Policy in the Seventeenth and Eighteenth Centuries'; the other is his article on mercantilist thought for the second edition of the *Encyclopaedia of Social Sciences*. 'Power versus Plenty' redressed what Viner thought to be an imbalance in favour of power among mercantilist objectives as expounded in the literature, or an undue neglect of plenty. He attributed this imbalance to nineteenth-century German scholarship on the subject, perpetuated in England by William Cunningham and later by Lipson, and even present in Heckscher's masterpiece on the subject.

The crux of Viner's contention is succinctly summarised as follows:

> practically all mercantilists, whatever the period, country, or status of the particular individual, would have subscribed to all the following propositions: (1) wealth is an absolutely essential means to power, whether for security or for aggression; (2) power is essential or valuable as a means to the acquisition or retention; (3) wealth and power are each proper ultimate ends of national policy; (4) there is a long-run harmony between these ends, although in particular circumstances it may be necessary for a time to make economic sacrifices in the interest of military security and therefore also of long run prosperity.
>
> (Viner 1991: 136)

The remainder of the article then diligently demonstrates the wide acceptance of these propositions by suitable quotations from the relevant literature (largely French and English) and from foreign policy pronouncements more widely sourced. The piece concludes with a fascinating discussion on what Viner believed the Marxist stance on the subject ought to be, emphasis on plenty, and what Marx actually said in at least one section of his work. Marx tended to reject 'economic pretexts' for British foreign policy making during the nineteenth century and argued, with respect to the eighteenth century, that British statesmen then sought to give the *appearance* of having foreign policy exclusively regulated by mercantile interests (Viner 1991: 151–2).

Emphasis on the 'generally misguided' nature of mercantilist economics, a matter Viner considered particularly relevant in 1948, constitutes the last word of the essay on power versus plenty (Viner 1991: 153). This theme is also explored in the *Encyclopaedia* contribution on mercantilist thought. A succinct summary of its essentials stresses search for national advantage: accumulation of the precious metals, to be secured through a favourable balance of trade for countries with no mines of their own, and assisted by active policies of export promotion and import discouragement, combined with a foreign policy directed at power and plenty (Viner 1991: 263). The concluding paragraph of the article dwells on the essential irrationality of mercantilism, and differentiates it from contemporary restrictive trade policy both in terms of supporting doctrine and the techniques of trade regulation. Whether this a swipe at Keynes' attempted rehabilitation of mercantilism in the *General Theory* is difficult to say. Unlike Heckscher, who criticised Keynes' stance on the subject in detail (Heckscher

1955: II, 340–58) Viner stayed completely silent on the matter, even when he reviewed the *General Theory* at about the time when his major studies of mercantilism had been well and truly concluded. A shade of what his stance would be is visible in his treatment of the 'balance of employment' doctrine in the article (Viner 1991: 267) in which the employment consequences of this policy were ignored to emphasise unfavourable terms of trade consequences, even though these by no means were an essential consequence of pursuing favourable balance of employment policies. Employment and growth were also invariably excluded from the more traditional list of characteristics of mercantilist literature he provided.

## III

If Viner can be said to have had an economist-hero, I am certain that Adam Smith would have been a strong candidate for this position. Smith is represented in this volume by two important essays, and permeates the work as a whole even more than mercantilism, as quick perusal of the index entries on Smith and his *Wealth of Nations* quickly and accurately demonstrates. Viner's love of Smith is visible in his strong defence of him against the treatment given by Schumpeter (Viner 1991: 338). His devotion to Smith is even more apparent in the lengthy compendium to Rae's life he wrote during the last decade of his life. This was a labour of love, greatly transcending the normal duties of the writers of introductions, as instanced, for example, by Viner's own contribution to this genre of literature, which is included in the volume under review as Essay 6. Viner's modestly titled guide to Rae's *Life of Adam Smith* is an exhaustive, thorough, scholarly and invaluable source of material important to Smith scholars, and will continue to be so for many years to come. Unfortunately, Viner died before the bicentenary of the *Wealth of Nations* and its concomitant publication of the Glasgow edition of Smith's works with its promise, yet to be realised, of a new biography of Smith, and its proper editions of *Moral Sentiments*, lectures, correspondence and essays. However, there is no doubt whatsoever that his profound Smith scholarship greatly assisted the task of its preparation (cf. Winch 1983: 4) just as earlier he had contributed to the collected edition of Ricardo prepared by Sraffa.

One of the essays on Smith included is the classic 'Adam Smith and Laissez-Faire', published in 1927 and still the most important source on the subject in print. Part of its thrust is reiterated in Viner's 'History of Laissez-Faire', also included in this volume (215–17), with its similar theme, so relevant today, of how easy it is to vulgarise Adam Smith on this subject. Viner's essay on Smith for the *Encyclopaedia of Social Sciences* is the other essay exclusively devoted to Smith included in the collection. That essay links Smith with many of the other themes in this book such as economic freedom, the role of the state and, somewhat more dubiously, utilitarianism. It also suggests that for Smith the phrase 'political economy', as an expression of the benefits of national economic policy, was synonymous with 'economic poison' (Viner 1991: 258–9).

Such a view seems to take inadequate account of Smith's identification of political economy with the national objective of increasing wealth, and hence, power (Smith 1976: 372); therefore making it a virtual synonym for an inquiry into the nature and causes of the wealth of nations, the object of Smith's own endeavour (Smith 1976: 678–9). It likewise neglects Smith's clear distinction between a right and a wrong political economy, the wrong varieties being exhaustively criticised as the subject matter of Book IV of the *Wealth of Nations*.

The essay on Smith and laissez-faire remains a brilliant *tour de force* despite what Viner later conceded to be its incorrect position on what he then called 'Das Adam Smith problem', or the ostensible contradiction between the philosophical positions in Smith's two books. It presents Smith correctly as the undogmatic adherent of laissez-faire, the pragmatist on government regulations and the judicious investigator of the specifics rather than the universals in the matter, all to be considered within their proper context. This picture sits uneasily with latter-day Chicagoans who dogmatically seek to apply the laws of the market, as simplified by them, to an economic reality of their own construction, and who, in the pursuit of this quest, have perversely taken the Scottish moral philosopher and conjectural historian as their mascot to give respectability to their cause. The stupidity with which politicians have blindly followed the dictates from such 'economic freedom fighters' further reinforces the wisdom of Smith on this subject: politicians often do much harm on the pretence of doing good. Viner emphasised this throughout his essay. 'The modern advocate of laissez faire who objects to government participation in business on the ground that it is an encroachment upon a field reserved by nature for private enterprise cannot find support for this argument in the *Wealth of Nations*' (109). For financial deregulators who justify their prescriptions by a blind faith in capital market efficiency, there is little comfort in Smith's proposition that 'the majority of investors could not be relied upon to invest their funds prudently and safely, and that government regulation was a good corrective for individual stupidity' (Viner 1991: 111). In short, although an individualist and supporter of natural liberty, Smith was not a doctrinaire laissez-faire advocate or, to use a frequent anachronism on this subject, a nineteenth-century liberal. Smith was far too intelligent for either position.

An omission from Viner's voluminous treatment of Adam Smith should also be noted, all the more astounding because it draws attention to his remarkable omission of Smith from much of the early and later content of his *Studies in the Theory of International Trade*. Regrettably, the reader will there find no application of Viner's substantial interpretative skills to the mysteries of Smith's international trade theory, and even more sadly, his complex monetary theory. The structure of the book permits the obliteration of Smith between the detailed discussion of foreign trade theories before him, and the bullionists' debates which started in the decade of Smith's death. The book under review does not redress the balance, presumably because Viner nowhere produced a detailed discussion of Adam Smith on the two themes which were such a major feature of Viner's own work, that is, international trade and monetary theory. In responding to this omission, Viner may perhaps have laughingly referred to the conclusion of his early paper, that his omission provided the complainant with a perfect excuse to make a 'refreshing … return to the *Wealth of Nations* with its eclecticism, its good temper, its common sense, and its willingness to grant that those who saw things differently from itself were only partly wrong' (Viner 1991: 113).

## IV

The authorial character which Viner attributed to Smith in the passage concluding the previous section can be largely applied to Viner's perspectives on economic freedom. Aficionados of Viner's writings will be delighted that this collection makes available for the first time his Wabash Lectures on the subject, a topic which also surfaces and resurfaces in several other essays included here. An instance of such resurfacing in the modern context is Viner's interesting and critical review of Hayek's *The Constitution of Liberty*, in which Viner demonstrates the multi-disciplinary skills at his disposal in dealing with a contemporary polymath of the calibre of Hayek. Other examples are the historical treatment of the subject in an essay on the history of laissez-faire, and its individual treatment in the case of Bentham, John Stuart Mill and Marshall, or from the perspective of man's economic status (Essay 12 in the book under review).

As Viner warned in his essay on Adam Smith (Viner 1991: 259), a belief in natural liberty and economic freedom is not a confession of faith in the virtues of philosophical anarchism. This is made abundantly clear in the second Wabash Lecture in the context of English seventeenth- and eighteenth-century demands for liberty and freedom where freedom from monarchical prerogative, bureaucracy and uniformed officialdom was complained of, but regulatory legislation enacted with due process of law was fully supported (Viner 1991: 53). Neither did economic freedom for Viner depict the state as a sign of the secular 'fall of man' or, as Paine so succinctly put it, that 'Government, like dress, is the badge of lost innocence' (*ibid.*: 205). This economic freedom, for example, was not inconsistent with the view its great expositor Adam Smith maintained, that 'it was preferable that a monopoly should be a state-owned and state-operated one rather than a private one' (*ibid.*: 51). Elsewhere, Viner (*ibid.*: 297) stated that state responsibility and management of prisons was a more significant reform in eighteenth-century England than Burke's famous Economical Reform Act. This was because the first heralded the essential role of the state as regulator even in a situation where the general rule of economic freedom was widely accepted and implemented through free entry, competitive markets (*ibid.*: 220, cf. 56). No wonder that Viner's own perspective on economic freedom was cautious, pragmatic and carefully formulated as a

> moral good, to be preserved and pursued when this does not involve too great a cost in the sense of loss of other goods, including other types of

> freedom, the case for which rests predominantly [on the] … argument and empirical evidence of the superior economic efficiency of a free-market free-competition economy to other forms of economic organization of society.
>
> (Viner 1991: 77)

It is this type of position which separates Viner from Hayek, as is abundantly clear from Viner's critical review of Hayek's discussion of liberty. Viner commences by immediately highlighting the problem inherent in simple definitions of liberty (Viner 1991: 347–8, 349–50; cf. Rotwein 1983: 266) and the ambiguities in the use which Hayek makes of the associated terminology of 'coercion' (Viner 1991: 348–9). Viner opts here for balance between extremes and for clarity and precision of definitions; a preference equally relevant to critical revaluation of Hayek's use of 'discretionary' and 'arbitrary', 'rule of law', 'equality before the law' and 'equality of opportunity'. Viner's sceptical distrust of simple definitions, and, as corollary, his belief that frequently these are either too easily abandoned for covering special cases or too difficult to apply in actual practice, make him more critical of the tone of Hayek's argument rather than of the general tenor of his conclusions. This is evident in Viner's remarks on Hayek's position on progressive taxation (*ibid.*: 353) and on the welfare state (*ibid.*: 355–6).

The contrast with Hayek's approach is illustrated clearly in Viner's general conclusion on the history of laissez-faire, which simultaneously indicates his agreement and disagreement with the Chicago school with which, for so long, he was actively associated. The passage in question is worth quoting since it also contains Viner's pragmatic utopia, which blended economic freedom and the welfare state:

> No modern people will have zeal for the free market unless it operates in a setting of 'distributive justice' with which they are tolerably content. There is, however, a great deal to be said, much of the best of which has been said on this Chicago campus, for so devising any measures aiming at distributive justice as to minimise their interference with free-market processes, and for making such interference as has general objectives operate indirectly, rather than by direct controls, on market transactions. But a laissez faire program which confined its efforts to preserving or restoring a free market, even a competitive market while remaining silent on or opposing any proposals for adopting new or retaining old measures in the area of distributive justice, would seem to me glaringly unrealistic with respect to its chances of political success, and highly questionable also with respect to more exalted criteria of merit. It was the combination, in the nineteenth-century English laissez faire program, of hostility to measures aiming at distributive justice and a hands-off attitude to the market which resulted in England getting a 'welfare state' with what is to my very private taste an excess of 'distributive justice' and a deficiency of free competitive market. A prettier Utopia to me would be a society with as completely free and competitive a market as

> was attainable in the setting of a welfare state in which mass poverty has been eliminated, the business cycle tamed, and opportunity made as equal as was consistent with the survival of private property, the family, and biological differences, as between men, in capacities and motivations. Such a Utopia would be nearer to the modern 'welfare state' than to laissez faire. It would nevertheless be a Utopia in which many attractive freedoms could flourish and prosper side-by-side with other ingredients of the good life not consistent with laissez faire. I would not make a plea for it, however, by appeal to 'general principles', nor would I make any claim that any others are bound by logical considerations to accept it as their own Utopia.
>
> (Viner 1991: 224–5; cf. Bloomfield 1992: 2076–8)

## V

Viner also addressed utilitarianism, Bentham, Mill and Marshall in his historical research, though the essays dealing with these persons address more than just utilitarianism. Unfortunately, Viner's essay on critics of the utility concept in value theory (Viner 1925) is not included in this volume, despite its partial historical content and its relevance to some of Viner's views on the subject this volume contains (for example, Viner 1991: 171). Utilitarianism, however, can also be usefully treated as ethics and in particular the ethics which were Bentham's concern, that is, those to be followed by moral leaders, legislators, and the 'lofty minds with whom the public welfare has become a passion' (Bentham, *Theory of Legislation*, as cited in Viner 1991: 158). Utility here enters in the context of Bentham's famous expression of public welfare as the greatest happiness of the greatest number, an exercise in maximising pleasure and minimising pain. Viner extends Bentham's concept of pleasure beyond the manner in which it is normally conceived, and in addition places the much 'ridiculed' proposal for its quantification in the perspective of the eighteenth-century conception to which it belongs (*ibid.*: 160–2).

Viner's treatment of Bentham can be seen as a foil with which Viner views Mill in his classic article on Bentham and Mill included in this collection. Bentham is almost as crucial to some of Viner's judgements in his equally deservedly famous essay on Marshall, likewise included. It is the social ethics of these thinkers on which Viner concentrates, whether in emphasising Bentham's impressive list of achieved reforms making him the most successfully implemented social reformer after Marx (Viner 1991: 156), his departures from the strict laissez-faire view with which he is usually associated (*ibid.*: 162–5), Mill's support for this stance (169, 175) and also that of Marshall (117–18 and cf. 121). The great strength of these essays lies in the fact that they portray the substantial continuity and link between the essentially eighteenth-century thought in Bentham, the mid-nineteenth century views of Mill and its late-Victorian version of Marshall, subtly calibrated to reflect the problem shifts, individual idiosyncrasies and institutional changes over the age spanned by these three major social thinkers and applied ethicists.

The essays on Marshall, Bentham and Mill in this volume provide other splendid examples of Viner's superb interpretative skills. For example, the essay on Marshall which followed Marshall's death by about seventeen years, pays homage to the 'enlightened contributions' on his life and work contained in Pigou's *Memorials*, but in its contents, and in particular its conclusion, it implicitly argues that the obituary nature of these pieces inhibits full appreciation of this 'great figure, one of the greatest in the history of our discipline' (Viner 1991: 127). A complete picture of a great thinker should dwell on weaknesses as well, guard against undue reverence and slavish imitation, and never forget that 'each generation should – and will – work out its own economics, borrowing from, reacting from, improving upon, retrograding from, that of the preceding generation'. By 1941, when the essay was written, Marshall's economics was already an economics of the past, but its social philosophy, which rather closely matches the Vinerian Utopia quoted as conclusion to the preceding section, is not yet a 'period piece', and were it to become so in the 'near future, it would properly become a matter for concern' (*ibid.*: 127).

This quality of continuing importance which Viner attributes to the work of great thinkers is likewise bestowed on Mill. Praising the editorial labour commenced at Toronto in preparing Mill's collected writings in a review of Mill's early correspondence it had already produced, Viner hailed this editorial task not only because of the relative scarcity of the 'bulk' of Mill's writings, but because of

> their quality, their historical importance, and their present-day vitality as influencing current thought, whether as guides or as challenges. Throughout the Western world, Mill's ideas still play a major role in the thinking of moral philosophers, of logicians, of political theorists, and of economists.
>
> (Viner 1991: 178)

Fifty years later, these words ring equally true and remind us that classical thinkers have an ongoing role for their modern counterparts.

## VI

Viner's concluding sentiment on the importance of the classics is easily reconcilable with his somewhat critical perspectives on the worth of the history of economics. One way to do this is by reference to Viner's own education. As Winch (1983: 1) perceptively remarks,

> Jacob Viner belonged to a generation of economists for whom the history of economic thought was neither a subspecialism within economics nor a hobby reserved for off-duty moments and the retirement years. A broad, though not necessarily profound, knowledge of those writings of past economists which had, for one reason or another, acquired classic status

> was a normal part of the early education pattern; and this knowledge could keep its value later as a means of situating modern debates. No special virtue or vice was attached to this.

Yet as part of his background, it coloured Viner's perceptions on scholarship and on the value of systematic historical study of the great thinkers of the past, since the knowledge which he, and his generation of Taussig students could take for granted, has now evaporated completely from modern economic training with its emphasis on fashion, fad and the latest technique from the most recent textbook. Viner's awareness of this problem, which arises from the sometimes excessive specialisation which intellectual 'progress' seems to entail (cf. Viner 1991: 393–4) is reflected in several of the essays included here – that on 'Fashion in Economic Thought', that on 'The Economist in History' and in some occasional addresses in praise of scholarship with which the volume concludes. Like the classical allusions so easily made by our Victorian and Edwardian ancestors, impenetrable to those who escaped the rigours and benefits of a classical education; or the biblical references increasingly meaningless to a non-religiously nurtured generation, historical allusion to classics in the field is an art disappearing from the skills of present-day economists. A glance through the entries of the index for this Viner volume is salutary in this context as a test for recognition skills of the names included, a test not likely to be satisfactorily passed by the products of the fairly illiberal mass-education of economists in the graduate schools of, increasingly, the world as a whole.

Viner's fears about such economic philistinism are eloquently expressed in two graduate addresses presented in 1951 and 1960 and mentioned elsewhere as well (Viner 1991: 357). The exhortations of the last focused on the benefits of an occasional return to the classics. This had to be critical and with an open mind, as befitting 'reasonable and reasoning' individuals and without falling to the temptation of turning classical authors into infallible authorities and idols (*ibid.*: 397), as wittingly and witlessly done to Adam Smith by ill read and non-historiate free-market dogmatists. More subtle is Viner's modest plea for some stress in scholarship in graduate training, made as early as 1950 and much more timely for the present climate of educating for short-term relevance and profit. It was a modest proposal only in its claims for scholarship; it was not modest in the standards Viner required for those undertaking the task of writing intellectual history. This last needed accurate texts, followed by accurate interpretation in the sense of attempting to ascertain the meaning of authors in their own terms. Hence it required contextual reading, placing authors in their wider social and economic conditions, combined with their literary heritage for which a biographical dimension was invariably a useful input. Viner himself enjoyed these skills to an inordinate degree. He likewise abhorred their breach, as is so strikingly illustrated in his reviews of Schumpeter and, to a lesser extent, Macpherson, included in this volume.

The need for modesty in the context of scholarship not only turned on aspects of method; Viner also applied it to the virtues of scholarship. These lay not in its possibilities for saving the world, opportunities for material reward or for the excitement it generated. They came from giving 'a sense of largeness even to one's small quests … once the taste for it has been aroused' (Viner 1991: 390). Modest likewise was the 'old-fashioned meaning assigned to scholarship … [as] … nothing more [or less][3] than the pursuit of broad and exact knowledge of this history of the working of the human mind as revealed in written records', a modest definition because it excluded scholarship from the 'higher order of human endeavour, the creative arts and scientific discovery' (*ibid.*: 385). Viner nevertheless conceded that scholarship was activity with great cultural value, worth preserving as a precious human quality, and therefore worthy of inculcating in the educated of society, both to safeguard and to maintain the world's rich literary heritage.

Another of Viner's essays included in this volume treats the discipline of the history of economics as being largely 'a history of fashions in economic thinking', with fashion broadly but yet quite specifically defined (Viner 1991: 189). In it, Viner identifies national fashions, methodological fashions, policy fashions, doctrinal fashions and even intellectual fashions. He argues that fashions can recur in economics and that the fashions need explanation, particularly when generated internally rather than from outside the profession. Is the remark, 'there even occurs, in current economic literature, the proposition that lack of realism in assumptions does not, of itself, detract from their relevance, including, I take it, relevance to matters of concern to non-economists' (*ibid.*: 193) a reference to an example of the latter concerning a methodological fashion which was set by Viner's erstwhile Chicago colleague, Milton Friedman, the origins of which Viner failed to comprehend? And what did Viner think of the fashion in definitions set by his friend Lionel Robbins in terms of separable ends and means when Viner himself pragmatically recorded these as neither very 'sharply distinguishable' nor, with respect to ends, as 'frozen and impervious to analysis' (*ibid.*: 330)? Viner's essay on fashion in economics is a salutary reflection on an all-too-common phenomenon in the subject.

Similar apt reflections on economics over time are contained in Viner's 1962 Ely Memorial Lecture on 'The Economist in History'. It set out to examine the image economists have presented to the lay public over time and which Viner concluded, generally speaking, cannot be seen as having been rather flattering. This is not history of economic thought. It is intellectual history of a theme clearly as relevant to the 1990s as it must have been when Viner addressed the American Economic Association in 1963. The mercantilists are shown to have only received a substantially 'bad press' *after* the repeal of the Corn Laws, its eminent critics of the eighteenth century such as Hume and Smith notwithstanding. The Physiocrats are presented as probably the only group of economists laughed out of the favour of public opinion, destroyed as they were by the biting satire first of Voltaire, and then of Galiani (Viner 1991: 229, cf. 314).[4] Classical economics had its detractors from Burke to Carlyle to Ruskin (*ibid.*: 232–6), who described its practitioners, among other things, as 'quacks', 'the plagues of Egypt' or 'the pests of society'. The prize in this lecture implicitly goes to Bagehot, one-time editor of the *Economist* and hence a connoisseur of the species, and to Viner for its embellishment, which suggests that even when economists seem to be getting a good press, they are really being subjected to nefarious insult:

> Walter Bagehot, not always given to kind words in his references to classical economics and its expounders, even remarked that 'no real Englishman in his secret soul was ever sorry for the death of a political economist; he is much more likely to be sorry for his life'. On one occasion, however, he came to the rescue of the economists, on the same line as that taken by Senior, by claiming that they no longer presumed to be both scientists and practitioners of an associated art: 'Modern economists know their own limitations; they would no more undertake to prescribe for the real world, than a man in green spectacles would undertake to describe the colours of a landscape.' Except the small but important and esteemed group of economists who today live a completely happy life devoted to dalliance with elegant models of comely shape but without vital organs, how many present-day economists are there for whom Bagehot's statement is even approximately true.
>
> (Viner 1991: 238)

Viner's confession at the start of the lecture that he had been frequently guilty of smuggling some history of thought into American Association meetings, clearly indicates that he thought this, generally speaking, a useful thing. He clearly believed that economics has a useful past, and that much can still be learned from the great thought of the greater writers economics has produced, even if this proposition cannot be stretched too far (Viner 1991: 357–8). These essays attest to his practice of this belief and to some of the limitations to which it was subject.

## VII

The limitations of intellectual history are paraded in two of the four reviews included in the volume. Most important of these is Viner's laudatory but nevertheless devastating review of Schumpeter's posthumous *History of Economic Analysis*. Viner's brief warning to the reader about his intentions in this review needs to be highlighted in discussing it. In it, praise was deliberately curtailed to make room for criticism; humble respect for an impressive command of intellectual history did not blunt Viner's desire to point out a significant number of cases where Schumpeter had gone astray (Viner 1991: 333). The way Viner conducts the review therefore reveals as impressive a command over intellectual history as Schumpeter's. Viner's opening criticism of incomplete index and lack of systematic bibliography is very apt for a work whose effective purpose was to act as an encyclopaedic reference. More cutting is Viner's fully justified accusation that the book was badly 'name-ridden', with many of the named serving no really useful role in the history (*ibid.*: 331), while in addition much of its general intellectual history serves no visible relevant purpose (*ibid.*: 332). Furthermore, Schumpeter's actual practice fails to follow his prefacing methodological prescriptions on writing about economic analysis (*ibid.*: 330–1). Specific comments and corrections then follow. These include Viner's criticism of Schumpeter's unjustified treatment of Ricardo, of Marshall, of Smith, of the Austrians and of aspects of the quantity theory. The review clearly illustrates Viner's own very high standards, and makes it a gem on the reaction of one intellectual giant to the product of another giant with quite different temperament, historical perspective and method of interpretation. The context of an author, which Viner made a guiding principle in his interpretative work, is largely invisible in the complex and not well interconnected structure which underlies Schumpeter's unfinished work, a work that nevertheless wins deserved admiration and respect. The review reflects a clash of style and method between the two historians.

Viner's other review worthy of notice in this context is his hyper-critical reading of Macpherson's study of *Possessive Individualism from Hobbes to Locke*. This likewise reveals a clash of temperament and style between reviewer and reviewed, focusing in this case on the legitimate objectives of intellectual history and the requirement of accuracy in historical interpretation. Once again, the review mixes sharp criticism with praise: the book is 'interesting, stimulating, sophisticated, full to the brim with insights and challenging interpretations' (Viner 1991: 357–8). This barely sweetens the tough criticisms which follow. In the first place, Viner denies the general objective of the book, which its author is said to share with other political scientists and philosophers. This is the proposition that the ideas of past authors such as 'Aristotle, Hobbes, Locke and Marx … contain important and direct present-date relevance', and that this can be distilled from the texts without the operation of biases to which intellectual history in the social sciences is so prone. Viner's perception of the role of intellectual history in economics is more modest, albeit still significant. It satisfies 'idle curiosity', his own explicit motivation for engaging in the task, and is of admitted cultural and extensive intellectual value in its own right (*ibid.*: 357). This difference in perspective immediately creates an unbridgeable gap between the reviewer and his subject. The second strand of Viner's criticism covers method and style of interpretation, in which Viner accuses Macpherson of perpetrating anachronistic readings of concepts such as 'universal male suffrage', 'possessive market society' or else narrowing Locke's meaning of property to suit, as Viner strongly hints, the author's explicit Marxist purposes. Viner read Locke's concept of property as quite frequently embracing wider conceptions of freedom. Locke's use of the phrase, 'life, liberty and estate', indicates this wider conception of property. This gives a very distinctive flavour to the role of the state conceived as defender of property, compared with that entailed by the phrase 'possessive individualism', which is Macpherson's theme. Hence the review's conclusion stresses that Macpherson's procedures in sacrificing interpretive value for modern day relevance in the end 'resulted in a greater loss to learning than [in contributing] to social salvation' (*ibid*.: 370).[5]

Viner's reviews of Hayek and Mill's early correspondence included in the collection have already been mentioned in other contexts in this review. Despite the excellence of these four samples of Viner's reviewing skills included in the collection, its editor must have had a considerable problem in reaching this outcome, because Viner was a fine as well as frequent reviewer of books, including ones on intellectual history. The sample included, however, shows Viner's virtues as reviewer to perfection: first, his great honesty in both reading and trying to understand the whole of the book to be reviewed, and then criticising it freely without fear or favour; second, his clarity of expression enabled his perspectives to be concisely and accurately conveyed to the reader. Contemporary reviewers of books can still learn much from this selection of high-quality review offerings from Viner's pen.

## VIII

Viner's skills as intellectual historian and historian of economics are abundantly demonstrated in the contents of this splendid volume which, incidentally, is a bargain in terms of quantity and quality of its contents relative to price in a world of expensive scholarly books. The essays it contains demonstrate his high standards of scholarship, his wide knowledge and his superb contextual interpretative skills in this exacting field. They also testify to the size of his 'intellectual curiosity' which, up to the week before his death, made him labour so assiduously at reading and library research in search of answers to the questions which interested him.

This raises a point of the somewhat selective nature of the coverage of these essays. To give one illustration, they include no essays devoted exclusively to Ricardo, Marx, Walras, Keynes or the Physiocrats, to name some major sources of economic writing worthy of historical treatment. The essays appear to concentrate instead on mercantilism and economic freedom, on Smith and the English laissez-faire tradition of Bentham, Mill and Marshall, and on the religious and philosophical antecedents of that tradition to which 'idle curiosity' drove him, especially during the later years of his life. This quest probably also inspired his abiding interest in Mandeville's *Fable of the Bees*. There seems likewise a tendency in these essays to admire the eighteenth century as a period of erudition, satire, wit and style never again emulated in human literature to this degree. However, it would be highly misleading to ascribe such focus on Viner's part to narrow specialisation. His work on international trade (Viner 1937) and the reviews of Schumpeter and the early Mill correspondence serve to remind us of the very wide range of his knowledge of economic thought.

Is the specific focus of these essays explicable by an ideological slant favourable to maintaining a free enterprise, competitive society and a liberal way of life? Samuelson (1972: 9) called Viner the greatest neoclassical economist in the Veblenesque sense of one following Marshallian blending of the two blades of the scissors, that, is, supply (and costs) and demand (and utility). This is a more apt description of Viner's intellectual inclinations than to include him among the Chicago school, despite his thirty years at that august institution, many of which in the role as joint editor with Frank Knight of its *Journal of Political Economy*. As Rotwein (1983) has argued in detail, and Bloomfield (1992) has substantiated, Viner essentially predates, and more importantly, frequently departs on, substantial points from what Reder (1982) has so cogently described as the essentials of Chicago economics. Viner was also too eclectic (cf. Samuelson 1972: 11) and pragmatic for such a position. To me, his political conservatism, leavened with traditional liberal values, resembles that of Marshall, and probably even more that of the great American Marshallian, Taussig, who after all took the young Viner through his early postgraduate paces.

To conclude, the picture of Viner the intellectual historian presented in this book resembles that painted by Baumol (1972: 13) of Viner's lecture course on the history of economic doctrines given at Princeton. It is too short to convey all his knowledge. It gets lost in the 'by-ways' of early history, thereby failing to reach the period when economics can be said to begin. Yet his treatment of the subject provides a sense of proportion often lost by other major economists venturing forth into the history of their subject; it has a sense of balance, a sense of the meaning of scholarship, and its requisites of patience, careful workmanship, high integrity and an appreciation of knowledge for its own sake. As such, the historical legacy of Viner will live on in this book (as in others by him) for years to come, testifying to his skills as intellectual historian and helping to impart them even after those who personally benefited from his generous (though rationed)[6] assistance through conversation and letters have departed. It can only be hoped that the present generation of economists grasps the opportunity offered by this book to eliminate incipient philistinism and to link actively economics with the humane and social sciences, as Viner invariably did when so consummately reviewing its intellectual history.

## Notes

1 Reviewing Jacob Viner, *Essays on the Intellectual History of Economics*, ed. Douglas A. Irwin, Princeton: Princeton University Press, 1991.

2 Parts of this section are particularly indebted to the insights on Viner in Winch (1981; 1983), Robbins (1970) and to Irwin's introduction to Viner (1991), especially 8–15.

3 Added by the author as being in the spirit of Viner's argument but nevertheless not sanctioned by Viner's text.

4 That is, Voltaire (1768) and Galiani (1770). The nature of the latter's wit is perfectly illustrated by his disposal of the Physiocratic 'doctrine of irresistible evidence' in the following, crisp sentences:

> It has appeared evident to the economists that the evidence of their evidence would render evident to all nations the evident advantage of free exportation of grain and that all nations would adopt it. Not a single nation has done so.
>
> (cited in Viner 1991: 229)

5 Not surprisingly, Macpherson replied to Viner's review, which elicited a rejoinder by Viner in which he did not retract his basic position, particularly on the broad nature of Locke's conception of property. It, but unfortunately not Macpherson's reply, is reprinted in this volume (Viner 1991: 371–5).

6 A story told by Samuelson (1972: 10–11) clearly illustrates how rationing can sometimes have favourable outcomes:

> I now realise why, when I used to go to Viner's office for help and discussion, he would open the door a crack and stand there puffing on his pipe, conversing through the few degrees of angle of that door. It powerfully shortens idle conversations to conduct tutorials on the hoof [hence leaving more time for productive work].

According to Viner, rationing has also to be applied to footnotes, and even book writing, since neither footnotes nor time for reading fell into the category of free goods.

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# 31 The making of good economists

## Reviewing some consequences of Colin Clark's life and practice[1]

What makes a good economist has been a question addressed by economists on various occasions. Notable answers in the past have come from John Stuart Mill, Alfred Marshall and Maynard Keynes. More negatively, contemporary Australian debate on economic rationalism has focused on what makes bad economists. The topic is therefore timely. Colin Clark was undoubtedly a very good economist. Heinz Arndt has gone much further and 'wonders why his name is not universally recognised as among the half-dozen great economists of the twentieth century' (Arndt 1979: 123). Clark's important contributions meriting this distinction arise from his innovative research on national income estimates, including the invention of the concept of Gross National Product, and his equally pioneering work on the theory of economic growth. His promotion of both Verdoorn's and Aukrust's laws in this work was well ahead of its time in discussions of growth and structural change. Colin Clark has, of course, a brief entry in the first edition of *Who's Who in Economics* (Blaug and Sturges 1983: 70). However, he only rated a small one in the *New Palgrave Dictionary of Economics* (Arndt 1987: 428) when compared to those who are invariably included among the half-dozen great economists in the twentieth century, that is, Maynard Keynes and Joseph Schumpeter.

Fortunately, brief, and not so brief, biographical entries are not the only sources on the life and work of Colin Clark, economist. A useful account of his work is included, both in a short history of Australian economics (Groenewegen and McFarlane 1990) and in an affectionate memoir (Perkins and Powell 1990). He has himself contributed substantially to 'autobiography' in recorded interviews with a variety of economists (Kenwood *et al.* 1982; Higgins and Clark 1989; Healey *et al.* 1990) and in semi-autobiographical studies (for example, Clark 1977; 1984). There is therefore plenty of data to draw on for investigating what factors made Colin Clark the remarkable economist that he was, and thereby more generally to address the question what good economists are made of.

Not only was Colin Clark a good economist, he was a practising economist with a strong belief and interest in his subject as a force for doing good in the world. In 1937 Clark (1937: vii) had argued that 'economics is eventually capable of benefiting the human race as much as the other sciences put together', a sentiment he suggested required matching research funding to place economics on a par with the other sciences. Fifty years later in 1988, Clark reaffirmed this faith in economics and economists. This was when Australia was experiencing more than its fair share of failed entrepreneurs, a burgeoning overseas debt, massive current account deficits and an economist-made recession for external account purposes, which a few years later made unemployment rates start to resemble those Australia had experienced in the 1930s. Although economists had made mistakes, Colin Clark maintained that their work had greatly contributed to the improvement in living standards and real income which had occurred over his lifetime (Higgins and Clark 1989: 299). What creates such a strong belief in the worth of economists and economics is another important lesson to be learnt from Colin Clark's lifetime of devoted economic practice.

Rather than evaluating Clark's major contribution to national income accounting and growth, this lecture pays tribute to Colin Clark by focusing on the consequences of his life and work to illuminate the process by which good economists and good economics are made. It does so in three parts. The first part highlights some sentiments from the past on the subject, and assesses these qualities against claims made by contemporary Australian anti-economic rationalists. The second section examines Clark's economic education in the light of these findings, highlighting some strengths in his later work attributable to this education. Before venturing some broad conclusions, the third part focuses on some facets of Clark's manifold interests in the subject, of relevance to current Australian economic problems. This is partly designed to generate a sense, imperfect though this has to be, of the great humanity invariably associated with this major Australian twentieth-century economist.

## The making of an economist

In his essay on Comte, Mill (1882: 82–3) briefly addressed what made a good economist. It responded to criticism of political economy relative to other social sciences offered by his French contemporary and former friend.

> We do not pretend that political economy has never been prosecuted or taught in a contracted spirit. … The principal error of narrowness with which they are frequently chargeable, is that of regarding, not any economical doctrine, but their present experience of mankind, as of universal validity. … The only security against this narrowness is a liberal mental cultivation, and all it proves is that a person is not likely to be a good political economist who is nothing else.

Mill's practice in his *Principles of Political Economy* fully reflected such qualities of the good economist. His *Principles* reveal Mill's overwhelming humanity transcending the Benthamite calculating machine his father's initial education had created, thereby providing the source of that admiration Marshall invariably felt for its author, when he was reading John Stuart Mill.[2] Sadly, Mill did not elaborate on this sketch of the good economist. His latent admirer Marshall did so when, at the start of the present century, he ventured to defend the need for an expanded economics education at Cambridge in terms of the qualities of a good economist with their substantial requirement of much specialised and intensive training. The discussion became part of his *Principles of Economics*, and can be seen as a careful variation on the Millian theme of what makes a good economist: 'The economist needs the three great intellectual faculties, perception, imagination and reason: and most of all he needs imagination' (Marshall 1920: 43). After exploring this trinity of faculties, Marshall elaborated further on this Millian theme by saying that economic studies did more than foster the purely intellectual and critical faculties, so essential to the practice of the subject. Contrary to what passes for the pastiche of the late twentieth-century economist presented by sociologists, Marshall argued:

> But economic studies call for and develop the faculty of sympathy, and especially that rare sympathy which enables people to put themselves in the place, not only of their comrades, but also of other classes. This class sympathy is, for instance, strongly developed by inquiries, which are becoming every day more urgent, of the reciprocal influences which character and earnings, methods of employment and habits of expenditure exert on one another; of the ways in which the efficiency of a nation is strengthened by and strengthens the confidences and affections which hold together the members of each economic group – the family, employers and employees in the same business, citizens of the same country; of the good and evil that are mingled in the individual unselfishness and the class selfishness of professional etiquette and of trade union customs; and of movements by which our growing wealth and opportunities may best be turned to account for the well-being of the present and coming generations.
> (Marshall 1920: 45–6)

Here economics is depicted as the 'handmaiden of ethics' and the foundation of economic progress and improvement. Marshall's remarks suggest the origin for that Cambridge belief in the civilising role of the economist, which Colin Clark, then at the end of a six-year stint at Cambridge with Marshall's successors, professed in 1937. To paraphrase the concluding paragraph of Marshall's inaugural lecture, a good economist required both a 'warm heart', so antithetical to well publicised contemporary views of economists, and a 'cool head', the anatomical aspect of the economist on which the sociologist's view of economic rationalism has tended to concentrate.

Maynard Keynes, Marshall's greatest 'pupil', and in my view the greatest economist of the twentieth century, left a series of essays in which he illustrated the desirable qualities of good economists. These are the portraits he sketched of some of his favourites among the great economists and which rank among the gems in his splendid *Essays in Biography*. His essay on Jevons is a good example. Thus Keynes reported that for his father, an economist in his own right and in 1875 examined at Cambridge by Jevons himself, Jevons was 'the pattern of what an economist should be' (Keynes 1972: 109). Jevons was also 'the first theoretical economist to survey his material with the prying eyes and fertile, controlled imagination of the natural scientist' (Keynes 1972: 119),[3] and 'a notable example [of] the many-sidedness which seems to be a necessary equipment for an economist' (Keynes 1972: 139).

That many-sidedness of the economist was spelled out in Keynes' first, and most magnificent biographical essay of an economist, the obituary tribute to Marshall. For style and insight, this brief life has few peers in brief lives of the famous. In commenting on Marshall's 'dual nature' as scientist ('the greatest, within his own field, in a hundred years') and moraliser, the clue to comprehending both Marshall's strength and weakness, Keynes elaborated on why he nevertheless considered this diversity of Marshall's nature as pure advantage:

> 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 branches of philosophy and pure science? Yet good, or even competent, economists are the rarest of birds. An easy subject, at which very few excel! The paradox finds its explanation, perhaps, in that the master-economist must possess a rare *combination* of gifts. He must reach a high standard in several different directions and must combine talents not often found together. He must be mathematician, historian, statesman, philosopher – in some degree. He must understand symbols and speak in words. He must contemplate the particular in terms of the general, and touch abstract and concrete in the same flight of thought. He must study the present in the light of the past for the purposes of the future. No part of man's nature or his institutions must lie entirely outside his regard. He must be purposeful and disinterested in a simultaneous mood; as aloof and incorruptible as an artist, yet sometimes as near the earth as a politician. Much, but not all, of this ideal many-sidedness Marshall possessed. But, chiefly his mixed training and divided nature furnished him with the most essential and fundamental of the economist's necessary gifts – he was conspicuously historian and mathematician, a dealer in the particular and the general, the temporal and the eternal, at the same time.
>
> (Keynes 1972: 173–4)

As Skidelsky implies in his aptly titled second volume of Keynes' biography, 'The Economist as Saviour', Keynes likewise exemplified many of the characteristics he so generously ascribed to Marshall (Skidelsky 1992: ch. 12). Keynes embodied to a remarkable degree the talents of mathematician, historian, statesman and philosopher; understood symbols but spoke, and more importantly, wrote, in words; looked at the particular in terms of the general, and touched abstract and concrete not only in the same flight of thought but also between the same set of covers. Keynes had great skills in presenting the present in the light of the often immediate past, but with an eye inevitably firmly fixed to the future. In his life and writing, he showed a capacity for blending the aloofness, integrity and creativity of the artist with the politician's adaptability of feet-on-the-ground common sense. No wonder he described economics as a subject at which so few excel and where mediocrity, combined with, and confounded by, jargon, are all too often the base coin which passes for economists in the world. Sadly, little contemporary training of economists reflects the many-sidedness essential to becoming a good one (cf. Butlin 1987).

It is in this context that the Australian debate over economic rationalism needs to be grasped, to the extent it concerns the training of economists. The writings of a major participant (Pusey 1991) contain some significant shortcomings. In the first place, the fact that warnings on potential narrowness in economics training were made by Mill in 1865, by Marshall in 1903, and by Keynes during the 1920s, suggests that narrowness in some economists is not a disease of the 1980s, but one to which leaders in the subject have been alert for a century or more. Ignoring this literature reflects the ahistorical and narrow nature of Pusey's enterprise. Second, the remedy lies in improved economics training and education, another matter not comprehensively addressed by the major critics of economic rationalism in Canberra. Pusey (1991: 60) for example, takes 'the conservative, neoclassical, "dry" and technical-econometric orientation in the economics profession in Australia, and of some faculties in particular (Canberra's Australian National University most of all)' as too well known to warrant much further comment.[4] Some subsequent discussion (Pusey 1991: 170–81)[5] of post-war trends in Australia's economics profession indicates that narrow focus, crude scientism or adherence to logical positivism, combined with over-emphasis on quantification and technique, are the training faults Pusey sees as those responsible for the transformation of 1970s economic discourse to the economic rationalism of the 1980s. This is not a profound analysis of the malaise of current economics education and training, and in many respects suggests misleading solutions to the problem.

In this context, criticism of Pusey as a representative critic of economic rationalism in Australia can go further. For a start, Pusey's book presents him as equally narrow and ahistorical as his *bêtes noires* in the senior executive service. He is completely silent on the historical dimension of the economic rationalism problem, presenting it largely as a phenomenon unique to the 1980s. Yet it was very easy to show that such failures in economics were recognised as almost endemic in the subject, and as something to be guarded against at all times (recall that Carlyle's aphorism of economics as the 'dismal science' was coined as early as the 1840s). Pusey's narrowness is further illustrated by his inability to come to grips with economics as a subject. He fails to grasp its inherent limitations, or to see the aspects of 'bad practice' in some of the cruder applications of managerialism and competitive faith to some of the policy pronouncements emanating from Canberra. He is trapped in the stark black-and-white contrasts of his own creation and therefore neglects any reasonable examination of the various grey shadings which in reality bedevil the subject, and make good practice so rare. Pusey's one fleeting glimpse at recognition of this is an anecdote he tells about the Department of Social Security in the 1980s (Pusey 1991: 139–40). However, he fails to explore the implications for his thesis which the story entails, perhaps because of the disastrous consequences it implies for the basic thrust of his argument.[6]

As an economics teacher for more than three decades, I applaud the warnings of the dangers of a narrow economics education and undue specialisation, to which critics of economic rationalism such as Pusey and Donald Horne have pointed. However, similar criticisms have been made far better and more authoritatively over the last century by many eminent economists, who were in addition, persons recognised as such by the economics profession as a whole. Constant reminders of such dangers in economics are nevertheless not unwarranted. However, the shallow identification of this danger with anti-quantification, anti-econometrics, 'dryness', and crude links between conservatism and neoclassical economics only illustrate the poverty of Australian sociology when it masquerades as economic critic. How shallow it is can be illustrated by a near-contemporary Australian example, the practice of Colin Clark and his economics education, which brings me to the second part of this lecture.

## The making of a specific economist: Colin Clark

Colin Clark's economics education appears to have been largely informal and postgraduate. His Oxford undergraduate training in chemistry gave him that 'controlled imagination' of the natural scientist combined with 'prying eyes' and factual curiosity, qualities Keynes had admired in Jevons. Oxford also gave membership of its Labour Club, inculcating both a strong social conscience and an interest in socio-economic problems, instrumental in turning his thought to economic studies (Young and Lee 1993: 26–7). It also gave him a valuable acquaintance with G. D. H. Cole. The last provided research assistance opportunities with Beveridge, Allyn Young (for four packed months) and Carr-Saunders, and ultimately (via Ramsay McDonald's association with Cole) membership of the Economic Advisory Council, yielding friendship with Robbins and Keynes. This type of training is what economists like Arrow have called 'learning by doing'. It helps to explain Colin Clark's creativity and sense of improvisation. It explains his 'hierarchy' of social sciences, 'where political science lies above economics and below history' (Pyatt 1984: 83). It also provided a new career path.

Keynes had been appointed a Cambridge economics lecturer by Pigou with the blessing of Marshall without formal academic economics qualifications.[7] Keynes repeated this successful experiment in academic appointment by recommending Clark to a Cambridge University lectureship in statistics as Yule's successor. Keynes' intuition thereby allowed Clark to demonstrate his statistical 'genius'. That genius was recalled when Keynes described Clark as 'almost the only economic statistician I have ever met who seems to me quite first class' (cited in Arndt 1979: 122). This compared him with people of Keynes' acquaintance like Tinbergen and Stone, to name two Nobel laureates. Giblin, a fellow King's man, described Clark's statistical genius differently. He saw it in Clark's talent for producing 'bricks without straw'. More importantly, it showed in Clark's ability for completing a major statistical work in a few years, one which 'a whole institute of statistics might contemplate with pride', and one, moreover, 'aflame with the author's passionate pursuit of economic welfare' (Giblin 1940: 262). The 'ivory tower' interlude of teaching statistics at Cambridge, after leading to visiting posts in Sydney, Melbourne and Brisbane during which Clark constructed Australian national income estimates with Crawford, ended with his appointment as economic advisor to the Queensland government in various capacities from 1938 to 1952 (Kenwood 1988).

No one can say that this training was narrow. Likewise, it would be difficult to conclude that it was the best training for all economists. Some of its implications can be briefly indicated. Carr-Saunders and Beveridge instilled a love for empirical research and statistical inquiry which never left Clark. Young, among other things, gave him an insight into increasing returns and dynamics which prevented any danger on Clark's part of dogmatic adherence to free trade and general laissez-faire policy (Clark 1951: ix–x). The Economic Advisory Council experience in 1930 (Clark 1977: esp. 87) taught him that great economists could be abysmally wrong (Keynes and Robbins on the onset of the great depression). Lecturing in statistics at the Cambridge of Pigou, Keynes and Robertson taught him the importance of national income and outlay in discussing economic welfare in its widest sense, and the value of statistics for *ad hominem* argument (Healey *et al.* 1990: 7).[8] Both his initial national income work, but more especially his work for *Conditions of Economic Progress*, taught him the essentials of statistical improvisation and the need for controlled imagination and creativity to get worthwhile results. His self-acknowledged mentors for the last included two classical pioneers in economics and political arithmetic: Sir William Petty and Gregory King, especially the former (Clark 1984: 70; cf. Clark 1951: 395–6). Finally, his hierarchy in the social sciences undoubtedly came from his hard, practical experience as servant to four Queensland premiers, which enabled the broadest possible introduction to practical policy formation from within the Loan Council and fiscal federalism to agricultural and industrial policy (Healey *et al.* 1990: 9–10).

Clark's economic education and early practice does quite well on the standards for a good economist set by Mill, Marshall and Keynes. Narrowness and an ahistorical stance on the subject were not the type of sins of which Colin Clark can be convicted. With an eye to contemporary debate, he did of course share some attitudes of economic 'rationalism' in free trade, limited government (his famous 25 per cent ceiling on national taxation) and dismantling the welfare state at least in part (Arndt 1992; Clark 1945; 1954).

If Marshall had had his wish for regular after-death brief return visits to this world, he would have been impressed with Clark's perception, reason and imagination, and their application to facts and to human welfare. Most particularly, Marshall would have been delighted by Clark's imaginative use of his notion of external economies, by Clark's development of his own original critical stance on the importance of capital accumulation to the growth process, and by Clark's rejection of crude Malthusianism and resource shortage fears as reflected in early doomsday development economists and the Cassandras from the Club of Rome (Clark 1984; Higgins and Clark 1989; Healey *et al.* 1990). What Keynes said about Clark the statistician has already been noted; it may be added that Keynes would have ranked Clark equally high on an aggregate quality index of economists based on their abilities in mathematics, history, philosophy and statecraft. Sadly, Keynes failed to leave a comment on Clark's daring flight into the future on the basis of the past (and present) in his forecasting model of the world economy for 1960. This enterprise was made even more risky (as Clark noted in its 1941 preface at ix) because given the life expectancy in the Australian life insurance tables, he was likely to be still very much alive and kicking in 1960 when the book's forecasts would almost inevitably be proved wrong. Despite the fact of 'how little went right and how much went wrong in *The Economics of 1960*, a warning to those engaged in long-period projections', Clark considered 'these are absolutely necessary for rational policy formation' (Clark 1984: 72).

A striking illustration of Clark, the wide-ranging economist, and hence of the value of his economic education, is obtained from a reading of Clark's fascinating *Australia's Hopes and Fears* (Clark 1958). This was an overview of the country designed for new Australians and visitors as well as old Australians. Although not a major contribution of Clark *qua* economist, it neatly reflects a fifteen-year Australian sojourn devoted to public service under four Queensland premiers by the economist son of an Australian with an English upbringing. The book is candidly frank and sometimes highly irritating. It is never dull. Integrity combined with pragmatism are signalled in the preface:

> I stayed in the service of Queensland Labor governments so long as there were any issues of policy on which I could agree with them. But when the time came when there was nothing in their policy with which I agreed, I thought it was my duty to resign.
>
> (Clark 1958: ix)[9]

The book shows all the facets of Clark the social scientist. Clark the historian is particularly evident in Chapters 1 and 2; the political scientist in Chapters 5, 8, 9 and 10; the demographer in Chapter 3; the economic historian in Chapters 4, 6, 7 and 12; the cultural and intellectual sociologist (Chapter 13) while the economist and statistician cast their presence when appropriate over the whole work, but rise to great heights in Chapter 11. The book is still worth reading for its curious facts and wisdom. Some samples suffice. It describes Giblin (anticipating Keating by some decades) on the prospect of Australia becoming a banana republic (Clark 1958: 227); it says harsh words about Australian universities in the 1950s and their consequences for Australia's 'cultural cringe' (Clark 1958: 297–8), it criticises the Commonwealth Grants Commission and fiscal federalism procedures (Clark 1958: 117–19) from a standpoint which the federal Treasury would applaud in 1993; it argues the errors in Queensland sugar policy in an account still appropriate to debates on the issue in the run-up to the last federal election (Clark 1958: 160–2). Clark identifies the word 'wowser' as Australia's greatest contribution to language. Its meaning is illustrated in Australia's attitude to the drink question in the 1950s and remains visible in contemporary approaches to other moral issues. Clark's analysis of the unintended consequences of licencing laws still bears reading in the context of current controversy over liberalising drug use (Clark 1958: 308–11, cf. Higgins and Clark 1989: 303).

Most fascinating for economists is Clark's account in this book of what he called Australia's economic troubles. Regrettable though it is to say, this chapter has stood the test of time far too well for comfort. A few sentences quoted from its contents illustrate this longevity and the value of taking a longer view in economics.

> What matters most about any country's economy is its productivity.
>
> The greater part of Australia's economic troubles over the last thirty years can be summarised in a single phrase – imports are persistently tending to outrun exports.
>
> When demand and costs are increasing in Australia, then the demand for imported manufactures always increases much more rapidly.
>
> Attempts to meet Australia's more or less chronic balance of payments crisis by means of wage reductions, unemployment, and restrictions of immigration are now, we hope, a thing of the past.
>
> What Australia needs, and has needed all along, is a policy of expanding exports.
>
> The proportion of the labour force engaged in service industries is therefore almost a direct measure of economic advancement.

Clark's 1950s diagnosis of Australia's economic problems, which is the highlight of his 1958 book crystallising the fruits of his economics education, leads directly into the third and penultimate part of the lecture.

## Clarkian solutions to 1993 problems?

In connection with Australia's current economic problems, Clark's observation about the crucial importance of productivity growth remains very pertinent. So do, with one exception, his statements about Australia's perpetual balance of payments problems. The sad exception is that history proved Clark wrong on his expectation that wage reductions, unemployment and restrictions on immigration were a thing of the past in 1958 as remedies for 'curing more or less chronic balance of payments crises'. His own remedy at the time, to try and expand exports as much as possible, remains the difficult and preferred solution. It is of course closely linked to the need to enhance productivity growth.

A detailed elaboration of these propositions was given by Clark (1962) in an address on economic growth. The context was the high unemployment (for the time) induced by a credit squeeze in response to a balance of payments crisis following the lifting of import controls. This domestically generated economic malaise combined with externally generated fears about the fate of certain traditional Australian rural exports to Britain if, and when, Britain joined what was then called the European Common Market. This last force acted as a constraint on Clark's favourite export remedy and recipe for Australian growth: the expansion of primary, especially rural, exports, particularly those where expanded export volumes would not drive down prices. Given the likelihood of British entry into Europe, Clark's rural export strategy focused on beef, where in his view exciting opportunities awaited beef producers in what he saw as the expanding markets of Europe and North America. In addition, he saw opportunities for fodder grain exports to Asia, provided transport costs were kept low. Both implied considerable structural change in Australian agriculture, including the abandonment of expensive irrigation schemes and the development of intensive production methods as practised in Denmark (Clark 1961: esp. 21–6). The last brought him into conflict with ecologists and zero-population growth supporters.

There was little room at this stage for an export-led recovery from manufacturing. This aspect of Clark's export strategy arose from two pillars in his thinking. A very strong dislike of protection was one; fear of the high import content of manufacturing import replacement was the other. However, Clark did not regard manufacturing industry development as a mistaken policy *per se*. A policy aimed at fostering a small range of specialised industries with high potential for efficiency was part of his economic strategy. However, in 1962 Clark was not optimistic about the contribution Australian manufacturing could make to solving the balance of payments problem. In his view, the part in export growth to be played by manufacturing industries would 'be a very small one for the next 20 years or so', and the immediate increase in exports required could only come from increased meat production, particularly in Queensland (Clark 1962: 26). Clark's prognostications at this time were not unreasonable as far as they went;[10] though much of the removal of balance of payments problems by the end of the 1960s came from mineral developments which he had either ignored or, as in the case of oil discoveries, scoffed at.

Clark's growth strategy based on rural exports implies the last proposition which I quoted from his 1958 diagnosis: a rising proportion of the labour force engaged in service industries as an incontrovertible sign of economic advancement. It is here that potential conflicts arise in Clark's prescriptions. The demands Clark's perspectives placed on the employment capacity of the service sector were substantial. Rapidly rising productivity in the rural export sector meant that little employment growth was possible in primary industry. Clark's dislike of protection and expectation of widening free trade in the world, together with his vision of limited possibilities for manufacturing growth for exports, likewise meant a probable decline, or at best minimal growth in manufacturing employment opportunities. Given also his belief in continued immigration to populate the country, substantial service industry growth was needed to employ the growing population. It is here that the overriding imperative of productivity growth can bring major problems which Clark's growth model, on its own assumptions, is incapable of solving.

Rising employment in the service industry has always had a fascination for Colin Clark (e.g. Clark 1984: 68–9), as did the importance of its contribution to Gross National Product and the difficulties associated with measuring its productivity. It should be noted that Clark was well aware of the fact that 'productivity in service industries can sometimes advance quite rapidly' (Clark 1984: 67). Clark had provided an exhaustive pioneering analysis of this in his *Conditions of Economic Progress*, in which the potential for increase in tertiary sector productivity was described as well below that of the secondary and primary sectors (Clark 1951: 314–15), a quantitative expectation later embodied in Baumol's law of productivity growth (Baumol 1967). However, when opportunities for internationally traded services start to expand, well beyond the international financial services to which Clark (1942: 28) initially confined them, competitive pressures may force substantial productivity increases in the services sector. Clark himself had noticed this in retailing (Clark 1951: 347–9), an area where competition generally tended to be vigorous, and business mortality consequently high. It has now spread to virtually all areas of the service sector, even those which, in principle at least, come closest within the ambit of Baumol's law of zero potential for productivity growth by definition (the 'Schubert quartet' example). The labour shedding announcements in the financial sector are too well publicised, for example, to have to demonstrate the relevance of this phenomenon statistically. Competitive pressures forcing labour cost reductions have now spread to many areas which were previously thought to be immune (cf. Gregory 1993).

This creates a contradiction of Marxian proportions in Clark's analysis of Australia's economic problems. Productivity expansion forced by competitive pressures, balance sheet and cash flow considerations, as well as export requirements, have spread to the service sector which acted as Clark's employment safety valve. This was inherent in his belief in the continuing growth of employment in the service sector as a concomitant factor in rising national prosperity. There seems little doubt that an export solution to Australia's present balance of payments problem requires a close watch on cost pressures and rising productivity, particularly if such rising exports have to come from manufacturing and services because of artificial but nevertheless real, constraints on primary sector export growth. This makes for bleak prospects for employment growth and for a return to situations of full employment as Australia experienced in the 1970s, let alone the 1950s and 1960s. Is this a new stagnation thesis in which 'mature economies' are incapable of 'even finding work for the whole of their present bread-winning populations' (Clark 1942: 109)? In the foreseeable short run, this seems to be the case.

Traditional ways out of this employment dilemma carry new problems with them. Demand management policies have only a limited scope, though if combined with policies to ease balance of payments constraints, perhaps greater than conventional wisdom from Australia's treasuries would suggest. Slack employment growth and stagnant demand are a good time to create and replace public infrastructure, largely because its real resource costs are then particularly favourable. Service quality considerations in parts of the services sector suggest that there are limits to labour shedding and productivity growth in these sectors on Baumol (1967)-type considerations. To me, these seem far more important than current experience suggests. A university audience needs no reminder of the cost of enforced productivity growth in educational service provision; the labour cost cutting measures elsewhere in public and private sector service provision are likewise generating quality losses which make such productivity gains of spurious value apart from the immediate benefits to accountants' driven balance sheet/cash flow considerations.[11] Productivity growth elsewhere, and its associated real wage implications for those in employment, in any case make both rising tax revenues and private sector service costs more bearable in order to maintain public and private service quality and put a brake on labour shedding in these sectors.

In the early 1940s, Colin Clark pinned some of his hopes for a post-World War II 'world equilibrium' on the rapid economic development of Asian countries (Clark 1942: ch. VIII, esp. 113). That rapid Asian economic development has occurred much later than he thought, but it may now increasingly yield the means for Australia, and elsewhere, for securing that export growth which he saw as essential. In this context, both his humanity and optimism came to the fore. His 1941 crystal ball gazing for 1960 with respect to Asia was predicated on two important assumptions. The first was a hope that peace would bring genuine and complete independence to Asia, an expectation which in actual fact took decades to achieve after 1945; second, he argued that 'world economic equilibrium' necessitated an end to economic nationalism, especially with respect to barring Asian goods and immigrants. That second prediction took even longer to eventuate.

## Conclusion

What conclusions about the making of good economists arise from this story of Colin Clark's life and work? In the first place, and contrary to the expectations of anti-economic rationalist sociologists, good economists can be made, though the task is not very easy. Second, and here the life of Colin Clark perfectly matches the principles of past economists, such an education should be broad to match the requisite qualities good economists need. This does not mean non-technical, non-rigorous and non-rational aims for that education. It means perhaps longer effective 'apprenticeships' for economists, before they can be let loose on an unsuspecting, and all-too-frequently uninformed, public. Third, it seems essential to attract the right sort of person to the subject. It does not only require 'cool heads' to do the essential calculations and theoretical modelling. 'Warm hearts' are required as well, to enable them to see beyond the accountant's immediate concern with balance sheet positions and cash flow outcomes by considering the longer-term social and political consequences as well. Fourth, good economists require a generous dose of the critical spirit, the ability to act as gadfly, to tilt at authorities' windmills, to be aware of the fact that the greats can be mistaken. And that brings me to the final conclusion from this exercise. The presence of good economists provides an elixir from which others can be continually refreshed. Revisiting Colin Clark, or perhaps introducing his work to a younger generation, has allowed me to benefit once again from a generous re-reading of some of his work. If it encourages some of you to do the same, this Third Colin Clark Memorial Lecture will have served a useful purpose.

## Notes

1 A draft of the lecture has benefited from comments by Tony Aspromourgos and Bruce McFarlane, whose assistance is gratefully acknowledged without implicating them in the final product.

2 Marshall wrote to Foxwell in April 1897, 'As to Mill … even when I differ from him, he seems to keep my mind in a higher plane than ordinary writers in economics' (Marshall Archive, Cambridge, Foxwell 1, p. 56). Marshall reproduced the warning Mill had made about narrowness in economics in Appendix D of the *Principles* (Marshall 1920: 771) but what there appears in quotation marks cannot be completely found in Mill's actual essay on Comte.

3 Keynes' remark on Jevons was a favourite with Colin Clark, as shown in his interview with Healey and McFarlane (1990: 60) and cf. Clark (1984: 60).

4 It is interesting to see the evidence Pusey provided to this statement in his footnotes: a reference to Max Corden's article on the *Economic Record* in the early 1980s prepared for the Economic Society's facsimile edition of the *Australian Economist* (1888–98); an article by Evan Jones in the *Economic Record* for 1977, and Hugh Stretton's *Political Essays*.

5 This draws on similar sources to the earlier remark (note 4 above) as well as on a paper by Noel Butlin, an interview with John Nevile, remarks from Niehans and Stigler quoted at second hand, and a study by Syd Butlin reprinted in the introduction to the Economic Society's facsimile edition mentioned in note 4 above. Given the variety and extent of economic literature, this seems a rather narrow selection to draw on, indicative of Pusey's rather profound ignorance of economics past and present.

6 The paragraph in question is as follows:

> Yet, second, this advantage [of having early access to Expenditure Review Committee proposals via the Minister] would have been of little value were it not for the fact that over the past few years Social Security had developed a

> strong policy research team of sophisticated people who were able to deal with the econometrics and the calculations and projections of Finance and Treasury. Respondents (in another department) told us that one of the most senior people here had a PhD in economics, had recently spent a year or more in the Social Justice Research Project at the Australian National University, and had prior and recent experience of high-level policy research work under Hawke in PM&C (the Department of the Prime Minister and Cabinet). The Minister had also been able to strengthen the research arm of the department by setting up a Committee of Review (led by a leading independent academic) to legitimate the department's claims with 'hard' sociological and demographic research.

The value of sophisticated knowledge of econometrics, calculations and projections and of a Ph.D. in economics are here admitted but not further explored, as is the case of the review led by a leading independent academic. The Ph.D. is presumably Dr Meredith Edwards, a very rational economist indeed; the independent academic the equally rational and quantitative economist, Fred Gruen. Pusey's subsequent reference to 'loss of policy control' to the central agencies of Treasury, Finance and PM&C in the Health Department at one stage likewise points to the value of rational economists for what he calls 'program departments' (Pusey 1991: 141).

7 See Moggridge (1992: chs 4, 8). Keynes' formal economics education was a term's lectures for Part II of the economics tripos (October–November 1905) combined with written papers and private tuition from Pigou and Marshall, and massive reading. I may add that Marshall himself had no formal training in economics whatsoever before starting to teach it in 1869. In 1877 he was appointed to a chair at Bristol on the strength of eight years teaching experience, two published articles and a book review!

8 As D. H. Robertson apparently ruefully put it, 'Keynes would be getting intolerable now that [in 1931] he had Kahn to supply him with all the theories he wanted, and [Clark] to supply him with all the statistics he wanted'. Clark's role in the Keynesian policy revolution in wartime Britain has been told on numerous occasions (Healey *et al.* 1990: 7; Patinkin 1982: ch. 9, esp. 239–54).

9 Clark's brief verbal sketches of Forgan Smith, Cooper, Hanlon and Gair (Healey *et al.* 1990: 9–10) illustrate this attitude and incidentally show his flair for political science and historical judgement. They also focus on a particularly interesting aspect of the history of Queensland, the *volte-face* of its Labor governments on nationalisation in the aftermath of the 1930s depression, and its post-World War II belief in the virtues of small government, which has enabled Queensland to stand out as a low public service state relative to the rest of Australia. Clark's description of Gair is particularly forthright.

10 They were perceptively criticised, nevertheless, by Sir John Crawford (1962). Crawford doubted the ability of any agency to pick manufacturing export winners on the ground of their potential efficiency; argued that Clark was underestimating the prospects for manufacturing and minerals, especially oil; and raised the pertinent qualification to rural export growth, 'What good is comparative advantage if markets are artificially closed against us?' (Crawford 1962: 30–3). I might note that this two-day seminar on economic growth was the first occasion I had heard Colin Clark speak, and that, when Clark's session and audience comment had concluded, my sympathies were with Crawford rather than with Clark's views.

11 Labour shedding in the service sector may have some peculiar consequences for subsequent productivity measurement. If matched with reduced service quality it is doubtful whether output per labour unit changes in the manner initial calculations may suggest. If associated with imposing increased waiting costs on customers, as many productivity gains in the financial and retail sector seem to entail, aggregate productivity change may be substantially reduced by imposing small productivity

losses on large sections of the community. Productivity calculations in the service sector in this way continue to be of interest, and need considerable further study.

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# 32 Exemplary economists of the twentieth century

## A review article of thirty-six economists' autobiographies[1]

As the editors comment in their introduction (which, incidentally, is the same in both volumes) publishing collections of the autobiographies of well known economists is now a highly fashionable activity. Among the more recent ventures in the field they mention Szenberg (1992); Breit and Spencer (1995) dealing with Nobel laureates; Kregel (1988; 1989) which reprints many of the autobiographies originally published in *Banca nazionale del lavoro*; four volumes of commissioned '*Makers of Modern Economics*' edited by Heertje (1993; 1995; 1997; 1999); and a series of interviews with economists edited by Tribe (1997), by Snowdon and Vane (1999) and by Ibanez (1999). The thirty-six autobiographies included here (or, more precisely, thirty-five since one, Chapter 18 on Ashenfelter, is an interview) have been drawn from the contributors to the Elgar series of collected papers, *Economics of the Twentieth Century*. As the appendix (reproduced in both volumes) indicates, not all of these contributors are included. On my count, sixty-nine economists in all are represented in this series through their collected essays, that is, almost twice as many potential 'exemplary economists' as appear in these volumes. I note also that the thirty-six include the editors of this series for Elgar, Mark Blaug and Mark Perlman. Table 32.1 presents data on all thirty-six economists included, some of which is useful to test the validity of the 'selection criteria' while, in addition, Table 32.1 facilitates the drawing of generalisations from this information set on 'exemplary economists' from the twentieth century. The introduction does some of this in terms of career patterns (section 0.2), networks and influences (section 0.3), and the type of lessons the printed views impart for understanding the contemporary state of economics. However, the less than a dozen pages devoted to this in the editors' introduction fail to tap anything like the full complement of riches which can be gathered on this score from reading these books.

At the beginning of this review, let me indicate immediately that the book is a most enjoyable read. I read the close to 900 pages of their contents (and made notes) over four afternoons of solid reading (though I do not swear to having fully absorbed every individual pearl of wisdom contained in these pages). In some respects, the first volume was the more absorbing read for me, though I hasten to add that Volume 2 also contains many interesting pieces. My preference system is somewhat warped, however. On the whole, I greatly enjoy reading

*Table 32.1* Thirty-six exemplary economists: some background data

| *Name* | *Country of birth* | *Present (or last) abode* | *Graduate school* | *Main area of interest* | *Date of first publication as recorded in bibliography* | *Entry in* Who's Who in Economics *1st edn, 1983* | *Number of entries in* The New Palgrave, *1987* | *Entry in* Dictionary of Dissenting Economists, *1992* |
|---|---|---|---|---|---|---|---|---|
| Amendya, Takeshi (1935 –) | Japan | USA | Johns Hopkins | Econometrics | 1964 | Yes | (2) | - |
| Ashenfelter, Orley (1942 –)) | USA | USA | Princeton | Labour economics | 1969 | Yes | - | - |
| Barzel, Yoram (1931 –) | Israel | USA | Chicago | Labour economics | 1963 | - | - | - |
| Beckerman, Wilfred (1925 –) | UK | UK | Cambridge | Growth theory | 1952 | Yes | (2) | - |
| Black, R. D. Collison (1922 –) | UK | UK | Dublin | History of economics | 1945 | - | (10) | - |
| Blaug, Mark (1927 –) | Holland | UK | Columbia | History of economics | 1956 | - | (8) | - |
| Brittan, Samuel (1933 –) | UK | UK | - | Policy | 1962 | Yes | - | - |
| Corden, Max (1927 –) | Germany | Australia | London | International trade | 1953 | Yes | (1) | - |
| Desai, Meghned (1940 –) | India | UK | Pennsylvania | Political economy | 1966 | - | (5) | Yes |
| Dorfman, Robert (1916 –) | USA | USA | California | Linear programming | 1943 | Yes | (2) | - |

*Table 32.1 continued on next page*

*Table 32.1 continued*

| *Name* | *Country of birth* | *Present (or last) abode* | *Graduate school* | *Main area of interest* | *Date of first publication as recorded in bibliography* | *Entry in* Who's Who in Economics *1st edn, 1983* | *Number of entries in* The New Palgrave, *1987* | *Entry in* Dictionary of Dissenting Economists, *1992* |
|---|---|---|---|---|---|---|---|---|
| Eltis, Walter (1933 –) | Czechoslovakia | UK | Oxford | Growth economics | 1963 | - | (5) | - |
| Giersch, Herbert (1921 –) | Germany | Germany | Münster | Public economics | 1948 | Yes | - | - |
| Greenhut, Melvin L. (1921 –) | USA | USA | Washington | International migration | 1951 | Yes | (1) | - |
| Grilliches, Zvi (1930 –99) | Lithuania | USA | Chicago | Production economics | 1957 | Yes | (1) | - |
| Hamada, Koichi (1936 –) | Japan | USA | Yale | General economics | 1962 | - | - | - |
| Kenen, Peter B. (1932 –) | USA | USA | Harvard | International | 1957 | - | - | - |
| Laidler, David (1938 –) | UK | Canada | Chicago | Monetary | 1964 | Yes | (3) | - |
| Lal, Deepak (1940 –) | India | USA | Oxford | Development | 1972 | Yes | - | - |
| Lazonick, William H. (1945 –) | Canada | USA | Harvard | Economic history | 1981 | - | (2) | - |
| Lindbeck, Assar (1930 –) | Sweden | Stockholm | Stockholm | Macro economics | 1959 | Yes | (1) | - |
| Lipsey, Richard G. (1928 –) | Canada | Canada | London | Economic theory | 1956 | Yes | - | - |
| Maddala, G.S. (1933 –99) | India | USA | Chicago | Econometrics | 1963 | Yes | (1) | - |
| Mayer, Thomas (1927 –) | Austria | California | Columbia | Econometrics | 1951 | Yes | - | - |
| Meltzer, Allan H. (1928 –) | USA | USA | UCLA | Macro economics | 1959 | Yes | - | - |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mueller, Dennis C. (1940–) | USA | Austria | Princeton | Public choice | 1966 | Yes | (2) | - |
| Negishi, Takami (1933 –) | Japan | Japan | Tokyo | Micro economics | 1958 | Yes | (2) | - |
| Perlman, Mark (1923 –) | USA | USA | Columbia | Labour economics | 1954 | - | - | - |
| Polak, Jacques J. (1914 –) | Holland | USA | Amsterdam | Econometrics | 1937 | Yes | - | - |
| Quandt, Richard E. (1930 –) | Hungary | USA | Harvard | Mathematical economics | 1958 | Yes | - | - |
| Richardson, George B. (1924 –) | UK | UK | Oxford | Industry economics | 1953 | - | - | - |
| Sato, Ryuzo (1931 –) | Japan | USA | Johns Hopkins | Economic dynamics | 1956 | Yes | (2) | - |
| Thirlwall, A.P. (1941 –) | UK | UK | Leeds | Development economics | 1967 | Yes | (1) | - |
| Todaro, Michael R. (1942 –) | USA | USA | Yale | Urban economics | 1968 | Yes | (1) | - |
| Tsuru, Shigetu (1912 –) | Japan | Japan | Harvard | Economic development | 1932 | Yes | - | - |
| Usher, Dan (1934 –) | Canada | USA | Chicago | Development | 1960 | Yes | (2) | - |
| Wiseman, Jack (1919 –90) | UK | UK | - | Public economics | 1953 | - | (1) | - |

biographies and, needless to say, autobiography is an important subset of this branch of literature. Moreover, on the evidence of these volumes, the 'dismal science' has produced some delightful humorists as well as some fascinating story tellers. The selected economists, moreover, have birth dates ranging from 1912 to 1945, with thirteen born in the 1930s, seven in the 1940s and ten in the 1920s. My own vintage is 1939 (a birth year not represented in this collection), but the book contains many accounts from those born in the second half of the 1930s and the early years of the 1940s, who are as close contemporaries as you could wish for in volumes like these. Pictures provided by them of LSE in the late 1950s and early 1960s (of which there are quite a few) reminded me greatly of my own experiences in the early 1960s when doing my doctorate there. In some respects, there is, therefore, a nostalgic element in my enjoyment of these volumes, which younger readers (born well after 1945) may not share.

In the remainder of this review, I wish to do three things, discussed respectively in the three sections that follow. The first, 'reviewing the troops' (with apologies to J.A.S.) looks at the sample as a whole and draws some generalisations different from those provided by the all-too-brief editors' introduction. It also looks at the nature of some of the implicit omissions in this context. The second section reflects on relevance of these volumes for students of the history of economics, an exercise which in many respects is quite idiosyncratic since the contents of these volumes have, on the whole, much to offer in this respect. The third section looks at special highlights and anecdotes which make this book so attractive to me and which, I think, would also have considerable appeal to potential readers. The customary final conclusions then concisely summarise these, and some further, general impressions of these volumes.

## I

As the titles of the two volumes proclaim, the thirty-six economists included in these volumes are subdivided into North Americans on the one hand, and Europeans, Asians and Australasians on the other. This classification gives twenty of them to North America (USA and Canada), while Volume 2 contains one Australasian (Max Corden), five Asians (three from Japan and two from India) and ten Europeans (a German, a Swede and eight British). This geographical classification is not tight, nor does it appear to have been consistently applied. The first three columns of Table 32.1 provide three alternative sets of criteria for such classification, which on the data supplied in these volumes (occasionally supplemented from other sources) yielded quite distinct national divisions. Before looking at this more fully, it should be noted that only thirty-three of the thirty-six were still alive by the time of publication of these volumes, two (Zvi Grilliches and G. S. Maddala) having died during 1999 while Jack Wiseman had died in 1990. Present country of abode in Table 32.1 should therefore be taken to include last place of abode in these three cases.

Classified by country of birth, the national composition of our exemplary economists alters considerably. For a start, the North American group is almost halved (from twenty to eleven, comprising eight born in the USA and three in Canada); the number of Asian economists almost doubles (from five to nine, consisting of five Japanese, three Indians and one Israeli); Australasia disappears (Max Corden was born in Germany); and the Europeans rise to sixteen (seven from the UK, two each from Germany and the Netherlands, and one each from Austria, Czechoslovakia, Hungary, Lithuania and Sweden). Hence North American economics has greatly benefited from immigration (some of it at a very early age, as shown in several case studies in this sample, and others relatively late in their careers). Australia (though not observable from these data) has done likewise. (Towards the end of this section I give a brief overview of the very limited Australian content of the two volumes.)

In terms of present abode, the United States dominates the sample even more than these volumes suggest. No less than nineteen of the thirty-six reside currently in the USA, together with two in Canada. The English-speaking world further expands, with nine economists in the UK and one in Australia, making a total of thirty-one in all for such countries. Of the other five, two are in Japan, and one each in Austria, Germany and Sweden (the Austrian being an emigrant from the USA, who had been born there from parents of German origin).

Place of graduate school (taken here to mean the place from which doctorate was obtained) confirms the real American dominance of the sample, as well as some of its more specific features. Twenty-two economists from a total of thirty-four (Sam Brittan and Jack Wiseman did not attempt a doctorate) experienced their graduate study in the USA (five at Chicago, four at Harvard, three at Columbia, two each at California, Johns Hopkins, Princeton and Yale and one each at Pennsylvania State and Washington). Eight completed their graduate studies in the British Isles (three at Oxford, two at London and one each at Cambridge, Dublin and Leeds). The four remaining doctorates were gained respectively at Amsterdam, Münster, Stockholm and Tokyo. From the younger generation (born in 1940 or after) five out of the seven took their doctorates in the USA, the other two in Britain. US domination is here very much to the fore, as is also indicated by the editors in their introduction to the book, and visible, as mentioned previously, in the division of subject matter in the two volumes.

Two distinct peculiarities in the sample may be noted at this stage. Neither Italian nor French economists are represented, despite the fact that one Italian (Sylos-Labini) has a volume of selected essays in the series of economics of the twentieth century from which the sample of economists in these volumes was drawn. Women economists are also absent, a striking confirmation of the male stranglehold on the subject. This is the case even though Irma Adelman, who contributed two volumes of selected essays to the twentieth-century economics series, could easily have been included, thereby adding a Romanian flavour to the birth origins of the sample as well. She was born in 1930; hence I fail to see why she was excluded unless, as with Sylos-Labini's volume of essays in the twentieth-century economics series, it lacked an autobiographical introduction.

Eminence ('exemplary', after all, suggests a degree of distinction even if its strict meaning indicates 'typical of the class', 'truly representative' or 'capable of serving as an example') of the economists in the sample is easily supportable by two additional sets of data reported in Table 32.1. Twenty-five from the thirty-six economists were listed in the first edition of *Who's Who in Economics* (Blaug and Sturges 1983), the eligibility for which arises from consistently good performance in the citation index. Here it is interesting to note that this type of distinction omits economists with a significant 'history of economics' presence in their CV (Black, Blaug, Eltis and, to a lesser extent, Desai and Negishi). In addition, it excluded the one economic historian in the sample (Lazonick), as well as the econometrician Barzel and the economists Hamada, Kenen, Perlman, Richardson and Wiseman. It is not difficult to hazard a guess why these last six failed to win the necessary number of citations to qualify for listing in this important reference work.

The historians of economics do better in the second eligibility test provided in Table 32.1: one or more entries in the *New Palgrave Dictionary of Economics* (1987). Twenty from the thirty-six qualified by falling into this category; the sixteen who did not can be identified from Table 32.1. It is difficult to generalise about such omissions. They fall, with the one exception of Sam Brittan, within the category of non-British, and apart from Giersch (Germany), were all working in the United States at the relevant time. A substantial number, for example, may have declined the editors' invitation to contribute to the *New Palgrave*, because either they judged it unimportant, or they were simply too busy.

Although I did not think it would yield many results, I also checked representation in the *Biographical Dictionary of Dissenting Economists* (Arestis and Sawyer 1992). Only one from the thirty-six, Meghnad Desai, is included there, a result I found somewhat surprising. The omission of Tsuru, a Japanese Marxist economist, who wrote an appendix for Sweezy (1942; 1949) on reproduction models, is one cause for my surprise; but on the basis of their essays, Lal and Lazonick could easily have been included in this type of dictionary, as is the case for Thirlwall (a post-Keynesian and the only self-confessed Keynesian in the sample). In addition, it was interesting to note how many economists in this volume had started out with radical, labour, socialist or Marxist principles, which often gave them the first impetus to study economics and who, as a result of that study, gradually turned away from such principles. A propensity of modern economics to kill off left-wing inclinations (but not always sympathies) is another striking feature illustrated in the lives of many of the thirty-six economists in these volumes.

One further conclusion can be drawn from the data provided in Table 32.1. This relates to age reached at the time of first publication, which information is implicit in all the thirty-six chapters. There was a remarkable degree of similarity in this factor of their professional development. Overall, the range was between twenty and thirty-six, but the more frequently implied ages fell more narrowly between twenty-five and thirty (72 per cent of the sample), with age twenty-six, twenty-seven and twenty-nine (eighteen observations in all) the most frequently implied as the time of the first publication. Only four economists managed to publish before reaching age twenty-five; six did so during their early thirties.

The limited Australian presence in these volumes may also be briefly outlined before bringing this section to a close. First, from the list of contributors to the Edward Elgar series of twentieth-century economics, two further Australians could have been selected for inclusion in these two volumes: Geoff Harcourt and Peter Lloyd. In addition, the following Australian connections can be pointed out. Mark Perlman wrote a dissertation on Australia's arbitration system, which was published in 1954 by Melbourne University Press; both Lipsey and Kenen enjoyed their contact at various places (Oxford and elsewhere) with Max Corden, as they acknowledge in their chapters; other Australian economists mentioned include Peter Jonson (formerly Research Department, Reserve Bank of Australia) in Laidler's essay; a visit to Monash with stimulus from Porter, Snape and Yew-Kwang Ng in Mueller's contribution; a tribute to Murray Kemp, and attendance at an ANU conference organised by Peter Drysdale, in Hamada's chapter; references to Swan and his diagrams by Sato (as well as by Max Corden); recognition of the Salter balance of payments adjustment model by Lal; and the pleasure of having Robert Dixon as a postgraduate student by Thirlwall. Corden's essay indirectly supplies a reason for this type of neglect. Australian applied policy discussion, a very substantial research area for Australian economists, has little of interest to offer to most economists from the northern hemisphere (Perlman is perhaps the exception in this volume), and therefore gains little recognition there. Theory, the real subject for most of the economists in these volumes, gives little scope for wide recognition unless you work in the dominant country or publish in what are called the major journals (invariably edited from the dominant country). It may be indicated here that for this reader the two volumes also strikingly revealed the decline of British theory in the post-war period, a matter equally evident in the awards of Nobel prizes since their inception in 1969. There is, of course, an irony here. The theory contained in the contributions of several of the economists included in the first volume is heavily USA-oriented. It provides theoretical answers to problems largely visible only in the United States because they flow from what are essentially US institutions. The dominant country sets the theoretical agenda, a proposition which was just as true for much of the nineteenth century when Britannia ruled economics as well as the waves. Fortunately, historians of economics are less constrained by such boundaries and can easily gain international recognition while working in their own countries on the history of economics of others. But such recognition is accorded, generally speaking, only in their own limited segment of the profession, to an examination of which, at least insofar as it is present in these volumes, this review can now turn.

## II

The potential usefulness of these volumes for historians of economics is difficult to exaggerate. The essays they contain provide fascinating pictures of the state of economics in various countries at various times for a substantial part of the twentieth century. This is shown in the introduction (xiv), which also draws attention to the growing internationalisation of the profession over this period, particularly visible in the career paths of the younger generation of the economists included. The introduction also signals particularly influential teachers in the United States, mentioning Milton Friedman, George Stigler, Fritz Machlup, Wassily Leontiev and Joseph Schumpeter, to whom Richard Musgrave needs to be added together with William Vickrey and Kenneth Boulding. For England, the editors identify LSE as the dominant school in the post-war period, followed by Cambridge and Oxford. They suggest Lionel Robbins, Harry Johnson, Joan Robinson and John Hicks as the most influential British economists of the period. This is all interesting material, but much of this type of information is readily available from other sources. However, the impact of these noted teachers on, and the reactions to them by, the thirty-six authors included in these volumes would be difficult to obtain elsewhere.

There are some obvious dangers in using volumes like this for generating generalisations about major economic schools and teachers. Take the case of England. The great significance given to LSE by the editors derives partly from the nature of the sample, including that from North America. Lipsey, Laidler and Lazonick were considerably involved with LSE among the North Americans, Wiseman, Desai and Blaug from those in the second volume. Cambridge was only important in the career of three of the British economists (Beckerman, Brittan and Eltis), for the last two because it gave them their initial economics training. If, however, the editors had selected Italian economists such as Pasinetti and Garegnani for the second volume, Cambridge would have gained considerably more prominence. In short, the numbers are too small, and too haphazard in some respects, to admit unambiguous and confident generalisations about the major schools in England, a problem with these data of which the editors are fully cognisant (xiv).

The pictures drawn of some of these prominent teachers are likewise not easy to interpret. This can be illustrated from the disparate views of Joan Robinson obtainable from these volumes. Not surprisingly, these feature mainly in the second volume. However, Greenhut mentions her twice in his account, in both cases as an example of a theorist expert in *spaceless* markets. Sato studied her *The Rate of Interest and other Essays* in Japan in the 1950s. Laidler mentions her 1961 visit to Chicago, where she expounded her critical views of contemporary capital theory, as well as her presidency of Section F (Economics) in the British Association for the Advancement of Science in 1972. Lazonick recalls his presence at her 'stirring debate' with Harry Johnson at LSE in 1968–9 on the subject of income distribution. Tsuru includes Joan Robinson as one of a small number of economists who rated Marx highly as an economist in the 1940s. Giersch said he was most disappointed in the late 1940s to hear her 'expound a vulgar Keynesianism' as a guest lecturer in Münster when he did his graduate studies. Beckerman, on the other hand, found her lectures at Cambridge on value theory and on money 'quite stimulating' in the 1940s. Corden mentions her only because he studied *The Economics of Imperfect Competition* in his undergraduate course at Melbourne in the 1940s. In the 1950s, Brittan experienced Joan Robinson's teaching while she was busy writing her *Accumulation of Capital*, recalling particularly in this context her critique of marginal productivity theory because of capital measurement problems while, in addition, he infers that she had 'frozen out' Milton Friedman (then on sabbatical at Cambridge) from participating in the long-established, 'secret seminar' on capital theory. Eltis' reminiscences, by contrast, are much more positive about Joan Robinson's Cambridge teaching, and can be quoted at some length:

> When I went to Joan Robinson at the beginning of the following year, I thought I was one [an economist] already. She removed every assumption I had made and asked me what then happened. I was not allowed to stick with a single one of my propositions. She then told me to come back the next week and to write the same essay again. I asked Sen who had been to her the year before what on earth she was expecting and he told me what she had regarded as the correct approach when he went to her. And so it went on, week after week. As I tried to say things she would find interesting, she removed every embellishment in my argument and left the bare bones. Finally, I received a letter which has stayed with me ever since (Robinson 1956a):
>
>> I have been hoarding over you and should like to offer a tentative suggestion. I think your trouble is lack of faith in your own ideas – you somehow feel that if they were set out clearly and simply step by step they would seem commonplace, whereas surrounding them with mystery makes them impressive. If so, this is quite mistaken. You have a very original and fertile mind. I know very well the sweat and tears involved in getting a new idea into shape, the painfulness of being criticised and the temptation to bluff.
>
> That has remained with me as the case for saying everything in the simplest possible language and never to use technicalities unnecessarily.
>
> (II, 297–8)

Eltis also recalls how his growth theory used Joan Robinson- and Kaldor-like views on plant and machinery, and expresses some astonishment in this context at the fact that they both treated labour invariably as homogeneous. By the 1960s, his views of her had become more critical: he mentions her 'orthodox' Keynesianism and her surrender to Keynes on aspects of interest theory in the 1930s, as recounted by Moggridge (1973: 146). Lal in his essay tells an anecdote about her behaviour at a seminar in the 1970s:

> At one seminar being attended by Joan Robinson, I made some innocuous statement about rates of return to capital. Whereupon there was a hiss and Mrs. Robinson screeched, 'You make my blood boil'. Much to his credit Amartya Sen (whom we had got to know when he took up a chair at the London School of Economics in the early 1970s) immediately shot up and said, 'but, Joan, it's all in *The Accumulation of Capital*' (Robinson 1956), and proceeded to cite chapter and verse. He later explained to me that he was probably the only one who had read *The Accumulation of Capital* thoroughly, as he had been made to proof-read it as a graduate student of Mrs. Robinson's!
> (II, 376–77)

By contrast, Thirlwall ranks Joan Robinson among the leading growth theorists in the Keynesian tradition, and even more obviously includes her as one of the major contemporaries of Keynes still around in the 1970s who appeared in the Keynes seminar he organised at Kent. Last, but not least, Blaug presents a concise footnote appreciation of Joan Robinson's writing style. This is a fitting conclusion to an overview of what these volumes have to offer on one of the leading economists of the twentieth century, as a sample of the nature of the riches available on many of her famous contemporaries within the pages of these books:

> A similar stylistic inspiration nearer to home was Joan Robinson, whose economic writings I first encountered as a student: they continued to fascinate me in later years. I read every word that she ever wrote and her language – verbal algebra peppered with homely colloquialisms – attracted me as much as her political views repelled me. She was always very rude to me when we met – after the Cambridge controversies on capital theory (Blaug 1975) she regarded me as an enemy – but I did not mind. It's hard enough being a brilliant woman in a male-dominated profession like economics but to be a brilliant woman in the homophilial atmosphere of the Cambridge economics department must have been maddening.
> (II, 216, n6)

Two of the three contributors to these volumes whose views on Joan Robinson have just been quoted (Blaug and Eltis) are of particular interest to historians of economics as persons able to give valuable insights on their practice of this craft. Similar insights can also be drawn from Dorfman's views on why professors emeritus make such good historians of economics (I, 43–7), and from Laidler's experiences as monetary historian in a similar vein (I, 348–9). However, only one of the included authors, Bob Black, describes his career as that of a concentrated and dedicated researcher on the history of economic thought over the whole of his lifetime. It started with postgraduate work on Longfield, and Irish economics more generally, and continued with Jevons, whose work he edited for publication by the Royal Economic Society. Perhaps this entitled him to pontificate on the usefulness of this type of research even to those economists 'engaged mainly in teaching and research in pure economic analysis' (II, 123–4). Such usefulness largely derives, in his view, from the erratic, and frequently circular and non-linear, 'progress' in economics, something which distinguishes it so sharply from the natural sciences.

That Black's judgement on the value of studying the history of economics is not an isolated one, appears to be confirmed in many of the chapters not written by those with a visible interest in the history of economics, but who, nevertheless, have drawn inspiration and guidance from either the classics, or pioneers in their chosen field, or both. Dorfman, for example, tells of the lesson he gave Samuelson in historical scholarship on the subject of von Thünen: 'When reading a work in economics written 100 or more years ago, beware the pitfall of imputing to the author the same implicit images of the economy and of economic actors and motivations that you have' (I, 146). Greenhut gained much inspiration from the writings of von Thünen in his quest to build realistic locational models because they taught him to include space *and* time. Perlman taught the history of economics at Pittsburgh, has contributed to its literature, and is a past President of the History of Economics Society in the USA (I, 85–6). He was also a key mover in the formation of the Schumpeter Society. Lipsey mentions that he learned his history of economics at Victoria College in Canada and later the LSE (I, 112, 117). Quandt came to economics through reading a history of economics text at the tender age of fourteen (I, 208). At Chicago price theory classes in the 1950s, Barzel was given Marshall's *Principles* as one of his major texts, being 'alternatively excited and exasperated' by this book (I, 222). Kenen indicates that Chamberlin taught him theory at Harvard in a historical manner (I, 260); Laidler praises the benefits for his economics education of the LSE's famous economics classics course, in which students were expected to read the whole of Smith's *Wealth of Nations* and Ricardo's *Principles*, as well as those by Marshall, adding that only Sam Hollander among his classmates appeared to have carried out this assignment (I, 327). Brittan recounts how Friedman (on sabbatical at Cambridge in the 1950s) remarked that if Marshall's *Principles* had been published then, 'it would have been hailed as the best advanced textbook on price theory' (II, 274). Friedman's liking for Marshall's *Principles* is not shared by Desai, who claims he refused to read this book in India when advised to do so by one of his teachers (II, 351). Negishi (II, 328–9) joins Black in presenting a strong case for economists studying the history of economics as part of their essential training, while Thirlwall mentions benefits from a history of economic thought course at Clark in the 1960s, taught to him by James Maxwell.

Other readers will draw upon different aspects from these volumes relevant to their history of economics research. One such aspect is the type of reading these economists were doing as part of their initial economics education. This issue is not comprehensively pursued in the introduction, partly because it was not systematically covered in the thirty-six essays which follow. The introduction does mention a number of frequently mentioned texts – Hansen's *Guide to Keynes* (1953), Hicks' *Value and Capital* (1939), Chamberlin's *Theory of Monopolistic Competition* (1933), Patinkin's *Money, Interest and Prices* (1956) and Samuelson's *Foundations* (1947) – all definitely among the leading texts for this generation of economists (in any case, they all appeared on my reading lists at Sydney University in the late 1950s). The introduction, however, omits to mention how many people read Marx in their early careers as economics students (especially, but not only, in Japan), while its remarks on Keynes' *General Theory* reflect the nature of the sample rather than the impact of the book on the teaching of economics in the post-1945 period. Similarly, the networking aspects and influences of the thirty-six, which the editors discuss in their introduction, are interesting for the historian even if often complex to delineate. The same goes for the question they raise at the end of their introduction: how unique are the lessons to be learned from the lives of these economists to the historical period in which they lived? (xx). As stated earlier in this section of my review, it is not always easy to generalise from this very diverse selection of economists' experience, but this does not in any way reduce the value of this material for the historian of economics. The contents of these two volumes, in short, constitute a valuable historical asset in more ways than one.

## III

As indicated at the outset of this review, the two volumes are also, on the whole, a good read. This is, of course, largely a matter for personal judgement, as was also admitted previously, and it is a feature of a book under review which is difficult to demonstrate. One way to provide a taste of this and, perhaps, thereby to whet the appetite of potential readers, is by giving some samples of what is in fact on offer. Since variety is the spice of life, this quality is what the following quotations attempt especially to capture.

Given the readership of this journal, the first sample presents an economist's definition of the role of an academic, a kind of bargaining theory of research, which the current Australian Research Council could do well to take on board:

> Academics strike a strange bargain with the rest of society. Doctorate in hand and subject to a favourable tenure decision, they are provided with an adequate salary for life and expected to go discover something. They are also expected to teach and to take part in the administration of the university, but about half their time is earmarked for research to be conducted in whatever manner and on whatever subjects they think best. Salary depends in part on the quantity and quality of the research as assessed by one's peers, but a reasonable standard of living is provided regardless. The assumption behind this bargain would seem to be that society needs a certain number of almost completely independent researchers – untied to any business, department of government or pressure group – to generate types of information that no organization would have an interest in generating or that no centrally-directed research would be likely to discover. A multitude of self-directed researchers scours corners of the world that a great organization might overlook. The rationale of society's bargain with its academics is not

> an implicit condemnation of organized research. It is a presumption that there is a place within the university for something else besides.
>
> (Dan Usher: I, 284)

Although not directly mentioned in the above picture of the academic's role, textbook writing is a chore which academics engage in; it can be seen, after all, as part of the essential teaching task. Here is a cost-benefit analysis of such investment of human capital, written by a very successful textbook writer; it is rather long, but not quantitative, and in addition, reveals a nice sense of humour as well:

> This raises the more general question: would I become a textbook writer if I had my life as an economist to live over again? The big negative is the amount of time and the unrelenting demands of publication schedules. Over the 35 years since I first began to write *IPE (Introduction to Positive Economics)* I have been the only author, or the equal co-author, of 30 editions of six distinct textbooks. In most of them, we rewrote a third to half of the material each time. The way we worked was for all of us to be responsible for all the material, and on successive editions, to alternate the chapters on which each author did the first draft of the revisions. This meant, as my co-authors will attest, that having more than one author, increased rather than reduced the workload because there were more critics to suggest new additions and revisions of old material. Also, the publisher's schedules are unrelenting. Miss a deadline by weeks, and you miss selling for the whole teaching year. I estimate that something like half of my research time, and something like one-third of the time I would have otherwise devoted to my personal life has gone into the textbooks. Had I not written all these, I would have written probably twice the number of articles in learned journals; I would have written a book with Curtis Eaton on the work that we did in the 1970s on the foundations of imperfect competition and spatial economics; and I would have written a book on methodology.
>
> On the plus side are four considerations. First, *IPE* fulfilled my research programme of finding out what was wrong with the Robbinsian methodology which I had been taught. I think it did something – largely unnoticed by the profession – to end the old methodology in which the test of a theory was the reasonableness of its assumptions. Second, I think I did something to restore student interest in microeconomics, particularly in the UK and in the many foreign countries in which *IPE* has been sold. (*IPE* has been translated into 15 foreign languages and sold in a UK subsidized, English-language (the ELBS) version to the former British territories in Asia and Africa.) Travelling about the world, I meet my students everywhere and get immense satisfaction from their personal testimonies. Once, while passing through a remote checkpoint in Kashmir, the official inspecting my passport looked up and said, 'You are not the man who wrote

> the book?' When I said, 'If you mean *Positive economics*, the answer is yes', he grasped my hand and said, 'Thank you'. That kind of satisfaction of meeting students for whom my books have been a real learning experience is massive compensation for learned articles not written. Third, all of the textbooks have helped to keep me the generalist that I wanted to be. I estimate that you need to know a minimum of three times as much as you write down in a chapter if you are to do it right. That means that, on every revision, you have to do an enormous amount of reading on all those areas in which you are not actively keeping up in the course of your own research. This is something which I know I would not have done if it were not for the relentless discipline of the textbooks. Finally, it would be less than honest not to mention money. I think I am one of the last writers of first-year textbooks not to have known that there was real money at the end of all the effort. I remember being in Lionel Robbins's office sometime after I had finished the micro half of the book. Lionel said he had heard that I was writing a textbook and did I know that John Hicks still made £500 a year on royalties from *Value and capital*. The floor opened up and nearly swallowed me: 'Five hundred pounds a year' said I. I went home with dreams of real money to spend – and fortunately not knowing that £500 was what the book would make for me in its first weeks not its first year.
>
> (Richard Lipsey: I, 129–30)

For exemplary economists, good paper writing is even more important. The quote below gives a lesson on this art, brief and concise, and drawn from a relatively young researcher who is well cited and well published, with plenty of JPE articles on his CV:

> For me a really good paper addresses an important question, lays out a model of behaviour that's being explored, and then provides a really convincing empirical test of the question involved. That's a really classic and excellent paper and I should add that there aren't very many of them.
>
> (Orley Ashenfelter: I, 389)

Chicago, as the dominant graduate school, at various stages used Viner and Stigler as supervisors. These giants in economics, well known to historians of economics through their writings, also worked at Princeton during their long careers, the setting for the two quoted anecdotes which follow. The first is a quick quip from Stigler (with a brief prelude on J. M. Clark); the second gives a portrait of Viner as 'Mr fix-it', one of his lesser known attributes:

> John Maurice Clark gave a sweeping course on the history of economic theory. I took Clark's course, one of the most interestingly interpretive experiences I have ever had – even though Clark was reputed to be just about the dullest lecturer around. I expected that he would be the theorist at my orals examination. About 24 hours before that examination I was

> told that the new department chairman, James Waterhouse Angell, had changed the practice; no longer would the candidate choose his theory examiner. So that is how I first met George Stigler. Whether he came 'loaded for bear' or I only thought so, the record is that he could not persuade the others to fail me, and he gave me a 'conditional pass' – with the right to reexamine me at the defence of my dissertation. I was told to talk to him immediately after the examination. I recall distinctly saying, 'What do I have to do to get by you – memorize your goddamned book?' His reply was pure Stigler, 'That will be good for starters, but you ought to do more.' Thirteen months later I had, and he did. We turned into friends; indeed, he recommended to Milton Friedman that I be asked to found the *Journal of Economic Literature*.
>
> (Mark Perlman: I, 82)

> Viner had agreed, provisionally, at least, to take me on as a student, but at our first meeting he made short work of my research proposal. American thought in the period I was proposing to study was, in his view, uninteresting – either a pale reflection of, or a reaction against, English classical doctrines. 'Why don't you work on the influence of classical political economy on Ireland in the nineteenth century?' he said. 'There's a good subject there.' I knew he was right, but suggested that the Rockfeller Foundation might not be too happy to have an Irishman whom they had brought to America to study American affairs turn around and start to work on Ireland instead. 'They'll agree if I tell them', said Viner, and they did.
>
> (Bob Collison Black: II, 108)

Men shall not live by bread alone, and economists do not only write papers, textbooks and dissertations. Some of them – a surprisingly large number in fact on the basis of some casual empiricism – actually read good novels and listen to music, occasionally with fascinating by-products and ingenious applications to their chosen field of interest.

First, a particular reading of Thomas Mann's *The Magic Mountain* (a work strongly recommended to those not familiar with it) by a self-confessed formerly left-wing Cambridge graduate who gradually moved to the right (an experience which he shares with many other economist-contributors to this book, as previously indicated):

> I was also absorbed by Thomas Mann's novel, *The Magic Mountain* (Mann 1927), where there are two characters who battle in an alpine sanatorium for the soul of a young engineer, Hans Castorp, and who brought out for me the age-old fundamental division between liberty and authority, hidden from public view by the superficial Conservative-Socialist argument. One is Settembrini, a somewhat operatic Italian liberal who proclaims, 'Democracy has no meaning whatever if not that of an individualistic corrective to state absolutism of every kind.' He favours both national self-determination

> and the abolition of war through international law. A passionate ascetic 'who lives in a garret', he loves 'form, beauty, freedom, gaiety, the enjoyment of life'. His more formidable antagonist is a would-be Jesuit, Naphta, who believes in 'discipline, sacrifice, the renunciation of the ego, the curbing of the personality'. He is also a revolutionary socialist, who looks forward to a new authoritarian order to be achieved by the proletariat. His favourite quotation is from Pope Gregory the Great: 'Cursed be the man who holds back his sword from the shedding of blood.'
>
> (Samuel Brittan: II, 277)

Second, an economist's view of music, and its (academic) opportunity costs, presented by someone who later became a noted quantity theorist and a historian of this theory of prices, at this stage fresh from 'the colonies' in 1950s London where his musical appetites could be generously sated. (Incidentally, no prizes are offered for explaining the 50 per cent 'scarcity rent' for Callas, then in her operatic prime.)

> I had consumed music, but particularly opera, second hand at home, largely thanks to the BBC, and in the face of a certain amount of disapproval from my parents, who did not think that this was an interest that would be useful to a future accountant or solicitor (perhaps even an Urban District Councillor!). In London opera was there to be explored at first hand, and at very reasonable prices. A gallery seat at Covent Garden, for example, was 5 shillings (7/6 for Maria Callas I think), which was not much more than it cost to feed the gas-meter to heat a bed-sitter on a winter evening, and I spent a great deal of time there and at Sadlers Wells. I picked up a lifelong habit which it has cost me a small fortune, and a prodigious amount of time, to feed. How many extra papers might have been written had I spent fewer evenings in opera houses is hard to imagine but, given the list of my writings, it is quite clear that, on the margin, even more time given over to Mozart, Verdi, Janacek, Britten *et al.* would have been time well reallocated.
>
> (David Laidler: I, 325)

Last, but not least, a continental joke, and a Jewish one at that. It is combined with a warning (which, in the text, immediately follows the joke) about the dangers of false expectations (whether rational or irrational can be left to the reader's judgement). Incidentally, the chapter from which it was drawn is one of my favourites in the two volumes:

> In Vienna, around the time I was born, in 1927, a popular joke was: 'Things are so bad that it would be better not to have been born at all. But who has such luck? One in ten thousand.' The economy had received a massive shock from the break-up of the Hapsburg empire after World War I, a shock that generated massive unemployment among white-collar workers in

> particular. Then came the Great Depression. One of my graphic childhood memories, dating from about 1936, is looking into the eyes of an unemployed man who tried to get passers-by to enter an exhibit made by unemployed people. Somehow it dawned on me that not only was he hungry today, but that he had been hungry the previous day, and expected to be hungry the next day too. The way in which the scourge of unemployment had marked the Viennese was brought home to me many years later in New York when I told my mother that I had decided to look for a better job. She replied: 'It is almost sinful to look for a job when you already have one.'
>
> Soon the threat of Hitler added political danger to depressed conditions. In my parents' circle of middle-class Jews, the response to this threat was denial – 'Oh the West would never allow Hitler to annex Austria'. (After the Anschluss my father said that if it comes to war Germany will collapse like a house of cards.) But they knew they were whistling in the dark. In case they ever forgot, an illegal, but active, local Nazi party was there to remind them of it.
>
> (Thomas Mayer: I, 94)

The items quoted above are only tips of the proverbial icebergs, a taste of a segment of the sort of revelation which economists' autobiography has to offer, and of the wit and literary skills in which they can occasionally be presented.

## IV

Much can, therefore, be learned from these two volumes: about the current state of the subject, and, in some respects, how it came about. Much can also be learned about the economists themselves: how they were brought to the subject, what attracted (and what annoyed) them in the various stages of their education as economists, and what drives them in their research and in their other activities. The volumes, in short, provide thirty-six case studies of 'what makes Sammy run' in economics, irrespective of whether that economics is produced in the research institute, the classroom, or in international organisations such as the World Bank and the IMF. (The last features heavily in some of the chapters, but has been largely ignored in this review for lack of space and requisite experience on the part of this reviewer.) Some, but by no means all, of the potential value of this collection for historians of economic thought has been demonstrated in the previous sections.

In a minor way, *History of Economics Review* is in the process of producing a somewhat similar exercise (but on much more limited scale) by assisting in the reprinting of ten 'biographical' sketches of 'exemplary' Australian economists of the era written by a well known Australian economist, Heinz Arndt. Reading both these collections more or less at the same time enables a final comment on this type of exercise. It relates to the issue Marx Corden explicitly touches on in his chapter, and which was briefly mentioned towards the end of the first section above. Why is good applied economics based on peripheral countries not generally recognised elsewhere, let alone internationally appreciated, and thereby implicitly considered as uninteresting for the world market? This is an issue worth contemplating, if only because it generates so many other problematic questions which ought to be dear to the minds of historians of ideas. Exploring scientific dominance, and change in dominance, is one such question. Examining asymmetries, if not inequalities, in the international transmission of ideas is another. A book that raises such questions, albeit it in an implicit and rather indirect way, is worthy of careful study for that reason alone. At the beginning of a new century, it invites us as well to ponder about what particularly requires change to provide a set of exemplary economists suitable to the needs of the twenty-first century. Good reading!

## Note

1 That is, a review of Roger Backhouse and Robert Middleton (eds) *Exemplary Economists*, vol. 1: North America, vol. 2: Europe, Asia and Australasia, Cheltenham/Northampton MA: Edward Elgar, 2000.

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# Index

Note: this index is for both volumes I and II