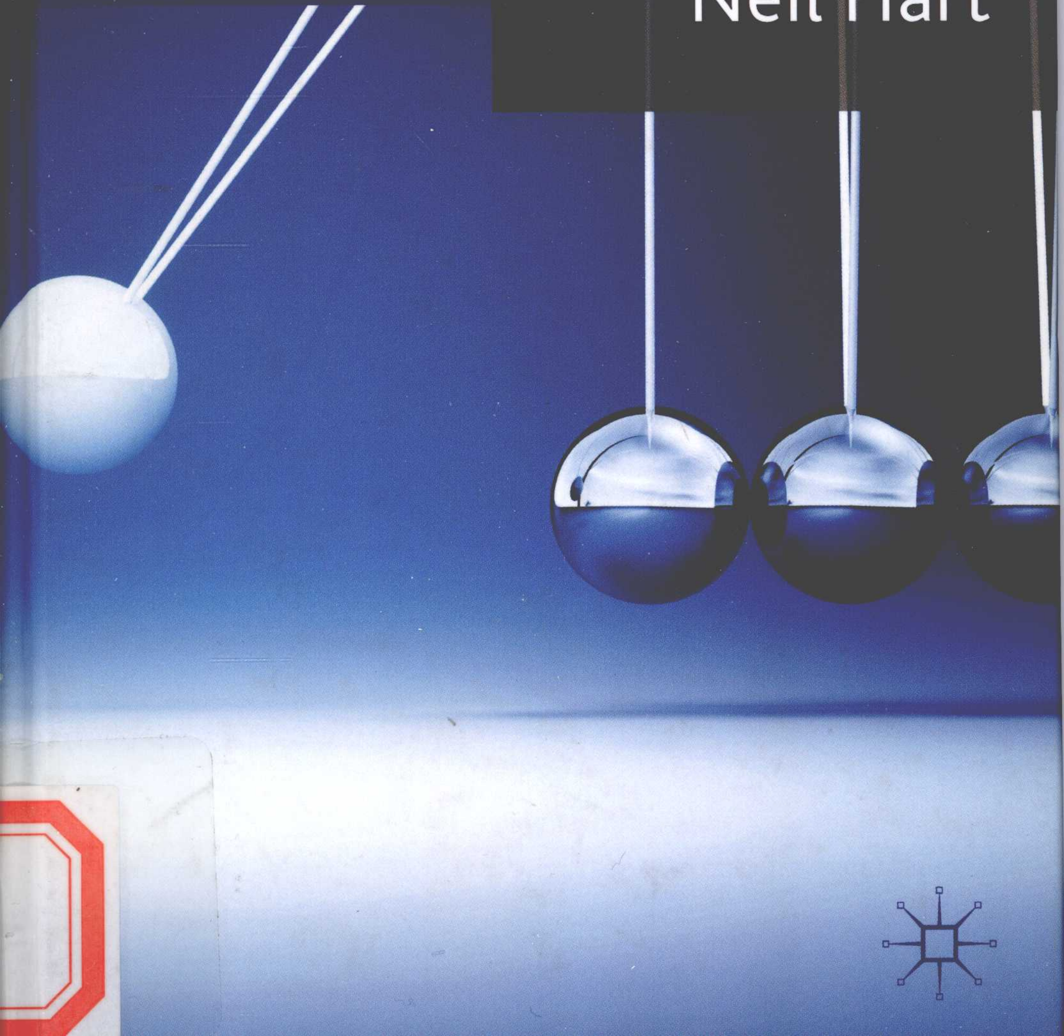
Equilibrium and Evolution

Alfred Marshall and the Marshallians

Neil Hart



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Alfred Marshall and the Marshallians

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palgrave
macmillan

First published 2012 by
PALGRAVE MACMILLAN

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Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, N.Y. 10010

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ISBN: 978–0–230–30270–9

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

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1
21 20 19 18 17 16 15 14 13 12

Printed and bound in Great Britain by
CPI Antony Rowe, Chippenham and Eastbourne

Preface and Acknowledgements

In many of the textbook accounts, Alfred Marshall is listed alongside Leon Walras, Carl Menger and Stanley Jevons as being amongst the most important of the pioneering 'neoclassical' economists, playing a particularly important role in developing the partial equilibrium comparative statics approach to economic analysis. However, Paul Samuelson, the prominent twentieth-century economic theorist, has argued that no one can understand the history of the subject unless they realise that much of the work from 1920 to 1933 was merely the negative task of getting Marshall out of the way. Before the process of 'getting Marshall out of the way' can be understood, the enigma that was Marshall's economics needs to be resolved. As the title of this book suggests, this requires a consideration of the relationship between the equilibrium and evolutionary themes that run through Marshall's *Principles of Economics*. Most importantly, the misrepresentations of Marshall's published writings that accompanied the theoretical controversies of the 1920s need to be cast aside. It is mainly with this purpose in mind that this book has been written.

My interest in Alfred Marshall's economics stems from early postgraduate studies undertaken at the University of Sydney. There, I enrolled in a subject titled 'Economic Classics', keen to broaden my narrow exposure to economic thinking through a detailed study of the writings of the likes of Adam Smith, David Ricardo, Karl Marx and John Maynard Keynes. I was, at the time, most disappointed to learn that Alfred Marshall's *Principles of Economics* had been included amongst the 'classics'. My 'familiarity' with the Marshallian approach had, I believed, already been established through courses in microeconomic theory during my undergraduate years, and Marshall's own contributions appeared rather uninspiring when narrated through the pages of George Stigler's *Production and Distribution Theories* and Joseph Schumpeter's *History of Economic Analysis*. Subsequently, I recall the frustration that arose from my inability to reconcile what I was reading in Book V of Marshall's *Principles* with what I had previously read in the textbook accounts. Two years later I submitted a Master's thesis based on these very same themes, supervised by the same professor who had insisted on the relevance of Marshall's economics to 'Economic Classics'. The professor's name was Peter Groenewegen, the eminent Marshall scholar who was soon to complete the definitive Marshall biography.

My interest was rekindled after participating at a conference with the theme 'Competition and Evolution: The Marshallian Conciliation Exercise', which took place in Sophia-Antipolis, France, in December 2000 (the proceedings were subsequently published in the Richard Arena and Michel Quéré edited volume, *The Economics of Alfred Marshall: Revisiting Marshall's Legacy*). In attendance at that conference were the leading Marshall scholars, including Richard Arena, Giacomo Becattini, Marco Dardi, Brian Loasby, Roberto Marchionatti, Laurence Moss, Michel Quéré, Tiziano Raffaelli and John Whitaker, whose ideas have been very influential in enabling me to relate my own interpretation of Marshall's writings with what is described in the introductory chapter of this book as the 'new view' of Marshall's economics. Most importantly, and through the writings of Tiziano Raffaelli in particular, the 'new view' recognises the significance of evolutionary themes in Marshall's thinking, together with the way in which Marshall's mature economic writings were influenced by his earlier philosophical, historical and psychological studies that he was engaged in as he embarked on his intellectual journey that led him to the unplanned destination of political economy. The Marshall that emerges from this perspective differs greatly from the textbook portrayal of Marshall as the pioneering neoclassical equilibrium theorist.

This book's intended readership encompasses those who have a general interest in the development of economic analysis. The material covered in the early chapters surveys a terrain which is largely familiar to the modern fraternity of Marshall scholars, although some of the conclusions reached, or implied, may not be seen as fully endorsing those generally associated with the 'new view' of Marshall's economics. Given the complexity of the themes running through Marshall's writings, it is inevitable that differing interpretations of Marshall's work and legacy will continue to prosper. However, in assessing Marshall's legacy, it is important not to divorce Marshall the economist from Marshall the man and the intellectual and social environment of his times. Due recognition must be given to Marshall's stated ambitions, even if in many instances these ambitions remained somewhat unfulfilled in Marshall's published writings. Current arrangements with Palgrave Macmillan include plans for the publication of a further monograph intended to extend the themes covered in this book beyond the horizons of the Marshallian era, assessing Marshall's treatment of equilibrium and evolution in the context of the development of modern economic analysis. Some of these themes are briefly introduced in the final chapter in this book.

Many of my colleagues and friends have directly and indirectly contributed to the writing of this book. Most importantly, the work would not have been developed to its current form without the continuing support and guidance from Peter Kriesler. Geoff Harcourt has also been a significant source of encouragement and inspiration, as he has been for so many of my colleagues over a number of years. Invaluable feedback has been received from Geoffrey Fishburn, Peter Groenewegen, Geoff Harcourt, Peter Kriesler, Stanley Metcalfe and Tiziano Raffaelli, who have read through earlier drafts of material which have come together to form the basis of this book. I am also indebted to Taiba Batool and Ellie Shillito from Palgrave Macmillan, whose advice and editorial input have helped to transform earlier drafts into the current manuscript. Finally, I want to acknowledge support from my partner Yolanda, who also assisted greatly in the laborious task of proofreading the contents of successive drafts of this manuscript.

Sydney, June 2011

Foreword

For many years now I have been enlightened by, and put right on, my views on the significance of Marshall's contributions to our discipline by a number of fine Marshall scholars. Foremost amongst them has been Neil Hart, whose articles I always found to be scholarly, deep and definitive as well as a pleasure to read. In 2009 I was one of the examiners of his PhD dissertation on equilibrium and evolution and the role of Marshall's writings on this theme. It was a privilege and a pleasure to see Neil's contributions over the years come together in a comprehensive and persuasive account of Marshall's economics. In particular I believe Neil's explanation of Marshall's essential dilemma – that while analytically he used (and rightly was secretly proud of) his partial equilibrium, comparative statics way of tackling time in economics, yet he knew that it was fundamentally irreconcilable with his vision of economies and societies as evolving organisms, so that approaches and methods emanating from biology and especially evolutionary theory would increasingly be needed to be used in economic theory.

Neil makes a powerful case that because evolutionary theory was in such a state of flux in Marshall's life time, Marshall was unable to solve his dilemma. In the second proposed volume (which also arose from Neil's dissertation), he will argue that the more settled conventional wisdom concerning evolutionary processes has allowed advances in economic theorizing which were not possible in Marshall's life time.

The present volume is a most readable and convincing account of Marshall's struggles and achievements, and of the reactions of contemporaries, some supportive (though with some of them for friends, enemies were not needed), some of them downright hostile for good reasons, to Marshallian doctrine. *Equilibrium and Evolution* is a splendid example of how a thorough knowledge of the history of economic analysis, grounded in the history and sociology and issues of the times of the contributors, is the appropriate base on which to erect relevant and incisive theory, application and policy for our own times.

It is an honour to have been associated with Neil's contributions and I urge readers to now read on.

G. C. Harcourt
August 2011

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Introduction: Competing Assessments of Alfred Marshall's Economics

> Although harsh, these are my well-considered judgements on the matter, and I mention them only because no one can understand the history of the subject if he does not realize that much of the work from 1920 to 1933 was merely the negative task of getting Marshall out of the way.
>
> (Samuelson 1967: 111)

This book re-examines the theoretical debates and controversies that characterised the 1920s, which Paul Samuelson has highlighted as being decisive to the development of economic analysis in the decades that followed. In these debates, attention was focused on what is now often referred to as Alfred Marshall's 'reconciliation problem', characterised as the attempt to construct supply schedules under conditions of pure competition in the presence of increasing returns to scale. A solution to this dilemma was thought necessary in order to legitimise the partial equilibrium analysis of markets founded on demand and supply functions. It was generally concluded that Marshall's attempts to resolve the 'reconciliation problem' had not only been unsuccessful but had also, as Mark Blaug (1962: 399) summarised, 'raised false problems that took the best efforts of a generation of economists to solve'.

Contrary to the judgements of influential commentators such as Samuelson and Blaug, the central argument developed in this book is that the nature of the difficulties that Marshall had attempted to resolve was fundamentally misunderstood and at times misrepresented by many of Marshall's critics, supporters and subsequent contributors to the development of mainstream economics. This misunderstanding emerges largely from a misinterpretation of the intended role of Marshall's representative firm theory, which was at the centre of the cost controversies of the 1920s. In particular, it is essential to understand that Marshall's difficulties were far removed from the contortions of the mind that characterised the attempts at preserving a notion of competitive equilibrium when confronted with the damaging implications of increasing returns. It could indeed be argued that this was a 'false problem'; however, Marshall did not concoct it.

The chief source of the difficulties that characterised the successive editions of the *Principles of Economics* (hereafter *Principles*) is revealed in statements Marshall presents in the Preface to the last four editions.[1]

> The Mecca of the economist lies in economic biology rather than in economic dynamics. But biological conceptions are more complex than those of mechanics; a volume on Foundations must therefore give a relatively large place to mechanical analogies; and frequent use is made of the term "equilibrium" which suggests something of statical analogy... This fact, combined with the predominant attention paid in the present volume to the normal conditions of life in the modern age, has suggested the notion that its central idea is "statical," rather than "dynamical." But in fact it is concerned throughout with the forces that cause movement: and its key-note is that of dynamics, rather than statics. (*Principles*: xiv)

The long list of qualifications and ambiguities found in the *Principles* arises in the main from Marshall's endeavours to construct an equilibrium concept that could be used to shed light on the outcomes of processes that are recognised as being continuous and irreversible in time, and evolutionary (or 'biological') in nature. It was this unresolved struggle between mechanical notions of equilibrium and Marshall's system of 'economic biology' that frustrated Marshall's ambition to construct a logically coherent theory of value that was not divorced from explanations of economic growth and development that accentuated the evolutionary nature of economic change. These are not 'false problems'; the issues left unresolved by Marshall continue to challenge the operational legitimacy of modern versions of equilibrium analysis long after Marshall was 'got out of the way'.

More than anything else, the consequential debates over increasing returns and Marshall's representative firm theory indicated just how far the Marshallians had departed from their revered leader, both in terms of theoretical content and methodological principles. In this setting, while Piero Sraffa's (1925, 1926, 1930) well-known critique represented a damaging assault on the prevailing orthodoxy, it had very little to do with what Sraffa had erroneously referred to as 'Marshall's theory'. This finding does not amount to a defence of Marshall's economics: rather it invites a reassessment of Marshall's economics; a re-evaluation that has the potential to illuminate pathways leading to fertile territories for contemporary economic analysis to explore.

The remainder of this introductory chapter examines Marshall's legacy and place in the history of economic thought, beginning with traditional interpretations and then moving on to the 'new view', a perspective which has become more widely accepted by Marshall scholars over recent years. The parallels and points of departure between the 'new view' and the central conclusions reached in this book are also briefly noted. The content of the chapters which follow is outlined in the concluding section.

1.1 Marshall's eminence in the economics profession

In terms of his contribution to economic analysis, Joseph Schumpeter (1954: 834) portrayed Marshall's *Principles* as representing more perfectly than any other the state of economics that emerged in England at the turn of the twentieth century. Marshall's 'favourite student', John Maynard Keynes (1924: 47–8), described how with the passing of time the intellectual qualities of the *Principles* permeated economic thought 'without noise or disturbance, to an extent which can easily be overlooked'. While finding Marshall's *Principles* to be an 'unsatisfactory book' when judged by 'present-day standards', Mark Blaug (1962: 398–9) acknowledged Marshall's major contribution as being one of the most 'durable and viable' books in the history of economics, describing Alfred Marshall as the most dominant figure in British economics from the 1890s right up to the 1930s.

The extent to which Marshall's *Principles* permeated economic thought is documented in the detailed commentaries provided by George Stigler (1941) and Gerald Shove (1942), as well as in the reminiscences by Francis Edgeworth, A.C. Pigou along with others assembled in Pigou (1925), and in later recollections by writers such as Joan Robinson (1978: ix).[2] Equally important was Marshall's role in the professionalisation of economics in Britain, as documented by writers such as John Maloney (1985), A.W. Coats (1967, 1968b), and depicted emphatically in Peter Groenewegen's (1995, 2007) definitive biographical accounts. Most notable was Marshall's role in the formation of what became known as the Royal Economic Society and the establishment of the Cambridge Economics Tripos. The significance of these aspects of Marshall's legacy was eloquently summed up in the following passage from Maynard Keynes' memoir to Marshall:

> Marshall was the first great economist *pur sang* that there ever was; the first who devoted his life to building up the subject as a separate science, standing on its own foundations, with as high standards of scientific accuracy as the physical or the biological sciences. It was Marshall who finally saw to it that "never again will a Mrs Trimmer, a Mrs Marcet, or a Miss Martineau earn a goodly reputation by throwing economic principles into the form of a catechism or of simple tales, by aid of which any intelligent governess might make clear to the children nestling around her where lies economic truth" [Marshall 1897: 296]. But – much more than this – after his time Economics could never be again one of a number of subjects which a Moral Philosopher would take in his stride, one Moral science out of several, as Mill, Jevons, and Sidgwick took it. (J.M. Keynes 1924: 56–7)

Marshall's substantial participation in government inquiries on economic and financial matters, such as the 1891–94 Royal Commission on Labour, also served to reinforce the growing status of his chosen profession. Marshall not only played a pivotal role in establishing the structures upon which a distinct economics profession could be nurtured, but he also succeeded in uniting around himself a group of followers who shared his professional ambitions. His continuing influence was spread well beyond Cambridge largely through the activities of his former pupils whose careers had flourished upon completing studies during Marshall's tenure at Cambridge:

> It is through his pupils, even more than his writings that Marshall is the father of economic science as it exists today [1924]. So long ago as 1880, Professor Foxwell was able to write: "Half the economic chairs in the United Kingdom are occupied by his pupils, and the share taken by them in general economic instruction in England is even larger than this" [Foxwell 1880: 92]. To-day through pupils and the pupils of pupils his domination is almost complete. (J.M. Keynes 1924: 59)

Marshall was, therefore, undoubtedly the foremost member of his profession at a most critical stage of its development. The enduring nature of Marshall's esteem within the profession is clearly attested in Stigler's centenary assessment of Marshall's *Principles*:

> At the time of Marshall's death, Keynes wrote that "As a scientist he was, within his own field, the greatest in the world for a hundred years" (Keynes, 1924, p. 12). Viewing Marshall with the increased objectivity that comes from the passage of 65 years and the absence of filial obligations, I find this judgement as valid today as it was in 1924. (Stigler 1990: 12)

1.2 Marshall's place in the history of economic analysis: the traditional 'textbook' perspective

Despite his eminence, Marshall remains somewhat of an enigmatic figure in the development of economic analysis. On the one hand, historians of economic thought have frequently placed Marshall (along with W.S. Jevons, Carl Menger and Leon Walras) at the forefront of the development of what has become popularly termed 'neoclassical' economics. Joseph Schumpeter (1954: 837), for example, argues that Marshall's theoretical structure, 'barring its technological superiority and various developments of detail', is 'fundamentally the same as that of Jevons, Menger, and especially Walras'.[3] Influential writers such as Stigler (1941: 8) viewed 'neoclassical' economics as stemming directly from Marshall's contributions, a judgment often found in history of economic thought texts.[4]

When applied to Marshall's original writings, the term 'neoclassical' may be employed with some justification. Marshall's work was never anti-classical in the manner that Jevons, and to a lesser extent, Menger and Walras opposed the contributions of Adam Smith, David Ricardo and J.S. Mill. Indeed, Marshall (along with perhaps Gustav Cassel and in some respects Knut Wicksell) stood almost alone amongst the early 'neoclassicals' in his attempts to establish the existence of continuity between his own theoretical apparatus and the 'classical' framework.

The term 'neoclassical' was coined originally by Thorstein Veblen (1900) at the turn of the twentieth century to characterise specifically the 'Marshallian version of marginalism'.[5] Increasingly, this term has become associated with the brand of marginalist economics that emerged from the writings of Menger, Walras and others such as J.B. Clark and which was formalised in the writings of Samuelson and his many followers. While many of the 'handy tools' that have come to define the marginalist approach can be mined from the crevices of Marshall's *Principles*, it cannot be argued that Marshall's own analytical structure was founded on the key marginalist principles. Therefore, at least in the context of the common usage of the term, Marshall's status as a prominent co-founder of the neoclassical school of economic analysis is rather tenuous.

Perhaps Marshall's greatest claim to fame within economic orthodoxy emerges from the role he is perceived to have played in the refinement of a theory of value based on the interaction of independent demand and supply functions constructed within a partial equilibrium framework. Within this setting, Marshall developed a number of concepts which Stigler (1990) proposes have had a lasting effect upon economic doctrine. First and foremost, Marshall made time itself a major factor in the theory of value; thereby, the role of time was 'made manageable' through time period constructs which drew a distinction between the short and long period analysis. Second, there was the doctrine of external and internal economies, which Stigler likens to 'handy tools as adverbs and logarithms'. Third, there was the prominence Marshall gave to the theory of the firm, focusing on the role it plays as a decision-making unit in decentralised industries. In addition, Marshall's introduction and emphasis upon consumer surplus is judged to have been a significant step in the development of welfare economics, later to be 'revived in the writings of J.R. Hicks'. Marshall is also seen to have contributed a variety of advances which contributed significantly to what has become human capital theory, and in monetary economics particularly in the area of the demand for money.

However, Marshall's exposition of the static partial equilibrium method is highly qualified, leading many commentators to puzzle over Marshall's 'ambivalent attitude' towards the subject matter in the *Principles*, and the 'schizoid' attitude towards equilibrium analysis in particular (Blaug 1962: 398–9). This sentiment, and indeed hostility to Marshall's economics by some prominent mainstream economists, is once again most plainly stated in the following passage from Samuelson's evaluation of Marshall:

> Marshall was a victim of what the modern Freudians call self-hate. He was a good chess player who was ashamed of playing chess, a good analytical economist who was ashamed of analysis...All of this prattle about the biological method in economics – and the last decades' genuine progress in biology through the techniques of physics has confirmed my dictum of 20 years ago that talk of a unique biological method does mostly represent prattle – cannot change this

> fact: any price taker who can sell more at the going price than he is now selling and who has falling marginal cost will be in equilibrium. Talks of birds and bees, giant trees in the forest, and declining entrepreneurial dynasties is all very well, but why blink at such an elementary point? (Samuelson 1967: 112)[6]

Marshall has therefore often been seen to be the 'inventor' of many of the analytical tools essential to the construction of modern mainstream economics; and for this reason he is accorded a prominent position in the development of economic analysis. However, his 'timidity' in applying the handy tools, and superfluous 'prattle' about the biological method in economics, not only left his own work incomplete, but also 'paralyzed the best brains in the Anglo-Saxon branch of our profession for three decades' (ibid.: 109). Once the 'ambiguities' in Marshall's theoretical structure could be cast aside, the handy tools (such as those listed by Stigler) could be used to assist in the assembly of the 'neoclassical' theoretical edifice.

It is not surprising, therefore, that a closer reading of Marshall's original contributions reveals that, despite the prominent position designated to him, little in fact remains of Marshall's theoretical structure and methodological approach. As Schumpeter's (1941) semi-centennial appraisal observed more than fifty years ago, Marshall's analytical apparatus appeared to be 'obsolete', a perception reiterated by subsequent commentators such as Brian Loasby (1978) in his aptly titled article 'Whatever Happened to Marshall's Theory of Value?' As is argued throughout this book, the answer to this question is as asserted by Loasby (ibid.: 2): 'Marshall's own theory was found much too difficult by his successors, who replaced its elaborate structure with a plain and simple doctrine.'

As is the case with many of the 'great economists', an assessment of Marshall's contribution to economics must distinguish carefully between his own writings and the later distorted renditions of his work emanating from his critics and disciples alike. In particular, Marshall's contributions must be disentangled from what came to be branded as 'Marshallian economics', if the 'perplexities' in Marshall's economics can begin to be unravelled. It is only then that Marshall's legacy can be fully appreciated and his contributions suitably assessed.

1.3 The 'new view' of Marshall's economics

The 'traditional' assessment of Marshall and his work has, over recent decades, been strongly challenged by a growing number of Marshall scholars. In place of the traditional evaluations has emerged a 'new