

Thomas Tooke and the Monetary Thought of Classical Economics

Matthew Smith



Routledge Studies in the History of Economics

Thomas Tooke and the Monetary Thought of Classical Economics

This study provides a comprehensive account and reconsideration of the contribution to political economy of Thomas Tooke (1774–1858), English classical economist and influential monetary historian and theorist. It clarifies Tooke's monetary thought and its legacy to modern economics. The study shows Tooke possessed a rich and extensive political economy, covering many aspects of economic activity relevant to key policy issues. Tooke's political economy is shown to be a unified and coherent body of intellectual thought in the classical tradition which, like most of his nineteenth-century contemporaries, was much influenced by Adam Smith's economics. More particularly, Tooke's monetary thought, especially his novel banking school theory, is shown to be theoretically coherent from the standpoint of nineteenth-century classical economics. It is also shown that, besides contributing towards a better understanding of the behaviour of monetary systems in general, key elements of Tooke's banking school theory make an important contribution to explaining distribution, growth and price inflation in modern economics.

In reconstructing Tooke's political economy the study provides insights into the conceptual properties of classical economics: into, for example, the approach to explaining market prices and their fluctuation, into explaining income distribution, the doctrine of free trade, the meaning of 'Say's Law' and explaining the fluctuation and trend movement in the general price level. The focus of the study is on reconstructing Tooke's monetary thought and, in doing so, to clarify the conceptual framework of monetary theory in classical economics. It is shown that Tooke's banking school theory contributes not only towards the construction of an 'endogenous money' theory as an alternative to the quantity theory of money approach, but that in the modern formulation of classical analysis it contributes towards a well-grounded conception of monetary forces, in particular, monetary policy, exerting a lasting influence on real economic variables such as income distribution, aggregate output and employment.

This book will be of interest to students and researchers of the history of economic thought and those interested in the foundations of the development of monetary thought and policy.

Matthew Smith is a Lecturer in Economics at the University of Sydney, Australia.

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First published 2011
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Simultaneously published in the USA and Canada
by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

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British Library Cataloguing in Publication Data

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

Library of Congress Cataloging in Publication Data

Smith, Matthew, 1959–

Thomas Tooke and the monetary thought of classical economics /
Matthew Smith.

p. cm.

1. Tooke, Thomas, 1774-1858. 2. Economists—Great Britain. 3. Classical school of economics. 4. Money—Great Britain—History. 5. Prices—Great Britain—History. I. Title.

HB103.T53S65 2010

339.5'3—dc22

2010036863

ISBN: 978-0-415-58393-0 (hbk)

ISBN: 978-0-203-82970-7 (ebk)

Typeset in Times

by Wearset Ltd, Boldon, Tyne and Wear

**To the memory of my father, Harold Smith (1932–2006), and
good friend, Gordon White (1930–2007).**

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Preface

This work has had a long gestation. It began nearly twenty years ago with research for a doctoral thesis on Thomas Tooke under the supervision of Peter Groenewegen at the University of Sydney, completed in 1999. While the present work bears a resemblance to that thesis, it represents a considerable expansion in the scope of the study and the development of the argument in consequence of ongoing research on Tooke and the monetary thought of nineteenth-century classical economics. Some of the key elements of the study have been published in journal articles and a book chapter in the past decade (see Acknowledgements). This book though has been designed with the larger purpose of bringing together all the elements into a unified study of Tooke in order to provide a rich, definitive exposition of his political economy.

My greatest debt is to Tony Aspromourgos, who provided valuable comment and advice on two chapters as well as on versions of much of the material for the book in draft and published form over the past ten years. I owe a great debt also to Peter Groenewegen who, similarly, has provided valuable comment on draft versions of most of the material for the book from its inception over the last fifteen years. I am further indebted to Massimo Pivetti, who first inspired me to study Tooke, for some helpful advice on key findings of the research. In addition, a special thank you is due to J. Jonnes and N. Fletcher for their translation of ‘Tooke-Say’ letters published in French. Others who I am grateful to, in various ways, for their time and knowledge, include R. Ciccone, G. de Vivo, P. Garegnani, C. Gehrke, R. Hirose-Smith, J. King, H.D. Kurz, M. Nearhos, R. O’Donnell, A. Palumbo, J. Pullen, A. Stirati and A. Trezzini. Furthermore, I am grateful to a number of anonymous referees over the years for their helpful comments on my various draft work on Tooke submitted for journal publication. Finally, I am indebted to the University of Sydney which has in a number of ways supported my research from its beginning. It needs hardly saying that I am solely responsible for the final product.

Matthew Smith
Sydney
August 2010

Acknowledgements

Acknowledgement is here given for permission to reproduce material from the author's following publications.

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A note on citation practice

To best apprise the reader of the nature of historical lines of influence between the works of writers often referred to in this book, the year cited will be, as far as known, to the original year of publication of the reference work. In particular, this will be the case with reprints of published works and those works originally published in a non-English language with the English edition published some time afterward. Thus, for example, the year of citation for Wicksell's *Interest and Prices* is 1898, when originally published in German, with the first English edition published in 1936. In the case when *only* the second or later edition of a work in which a number of editions are published is cited and the content of the work referred to is originally published in its first edition, then the citation will consist of the year of the first edition followed in brackets by that of the later edition used. Thus, for example, the year of citation of J.S. Mill's *Essays on Some Unsettled Questions on Political Economy*, second edition, is (1844 [1874]) and of Adam Smith's *Wealth of Nations*, Glasgow edition, is (1776 [1976]). In the particular case of citations to Tooke's six-volume *History of Prices* (1838–1857), the citation will always be designated by the volume number in roman uppercase. Thus, for example, the citation to volume four of Tooke's *History of Prices* is (1848a, IV), even though this reference can be identified without designation of the volume number. Though William Newmarch was an important collaborator in the authorship of volumes V and VI of *History of Prices* (see section 2.2 below), for convenience they will sometimes be cited only by reference to Tooke.

A much-used reference source in this work is evidence given to British parliamentary committees by Tooke and others. This source is cited in the same way as published works by reference to the year of its publication and, in the case of parliamentary evidence given to two or more committees in the same year, then, in the same way as one of an author's multiple-cited publications of the same year, it is designated by alphabetical letters in lowercase. For example, Tooke's parliamentary evidence to the 1848 Commons Secret Committee on Commercial Distress is cited as Tooke (1848b) and his evidence to the 1848 Lords Secret Committee Appointed to Inquire into the Causes of the Commercial Distress is cited as Tooke (1848c). For those not familiar with references to minutes of evidence and reports of parliamentary committees (and appointed commissions), 'P.P.' refers to British parliamentary papers.

1 Introduction

The leading theorist of the banking school and author of the monumental six-volume *A History of Prices* (1838–1857) and the brilliant pamphlet, *An Inquiry into the Currency Principle* (1844), Thomas Tooke (1774–1858) can be rightfully counted among the most prominent figures in English nineteenth-century monetary thought. In addition to an impressive number of writings on money and prices, Tooke actively participated in the discussions of the Political Economy Club from its inception in 1821 until well into the mid-nineteenth century and gave evidence before no less than ten parliamentary committees between 1819 and 1848, most of them concerned with monetary issues and chiefly responsible for shaping Britain's banking policy in the nineteenth century. A number of eminent economists important to the development of monetary thought have closely studied Tooke's writings and, in various ways, have been influenced by his ideas. These include J.S. Mill, Marx, Knut Wicksell and Alfred Marshall, the latter two being pioneers of twentieth-century monetary thought whose theories, in their essentials, still dominate. But, despite Tooke's significant contribution, there has been relatively little literature in the history of economic thought devoted solely to a comprehensive study of his work and ideas. This neglect appears to have stemmed from a lack of interest borne of an underestimation of the constructive value of his contribution. The main theme in the commentary on Tooke is that, while he made valuable contributions with his large-scale empirical analyses, with his pragmatic arguments on policy issues and with his critically minded exposure of weaknesses in the quantity theory of money, the alternative monetary theory he developed has little positive value. This opinion is well represented by Wicksell:

His [Tooke's] monetary contributions – no matter how highly one may regard them in other respects – are on the theoretical side purely critical in general outlook and negative in concept. It is quite impossible, I think, to construct out of them a positive theory of money.

(1898: 43–4)

However, this opinion stems from interpreting Tooke's contributions through the looking glass of marginalist theory, which rose to dominance from the late

2 Introduction

nineteenth century. From the standpoint of marginalist economics, most of Tooke's key banking school ideas are not logically coherent and have thereby been judged to be of little constructive value. But Tooke developed his banking school ideas on the very different theoretical foundations of English classical economics which dominated the first half of the nineteenth century. These ideas would therefore have been seen by Tooke to only have constructive value when comprehended in terms of the theoretical foundations of classical economics from which they logically sprang. Why then should any scholar of Tooke who does not understand his ideas in terms of classical economics find constructive value in them? Like many of his classical contemporaries, a full understanding and hence appreciation of Tooke's contribution has become victim to the fundamental change that has undertaken economic science since 1871. Fortunately, the rigorous reconstruction and revival of classical economics that occurred with Piero Sraffa's *Production of Commodities by Means of Commodities* (1960) has provided a clearer analytical perspective for better understanding the classical economists in general and, more particularly here, Tooke's economics. With this perspective, Tooke's banking school theory can be seen to make an enduring contribution to the theory of distribution, as well as monetary behaviour and the price level, relevant to modern capitalist society.

The purpose of this study is to provide a comprehensive account of the contribution of Tooke to economic science, with an evaluation of that contribution. Though his contribution will be shown to be made principally in the field of monetary economics, it is not exclusively so. Indeed, an important aim of what follows is to show that in the tradition of classical economics Tooke possessed a rich political economy encompassing explanations of various aspects of the economic system such as the fluctuation in activity and changes in income distribution as well as contributing to debate on a number of policy questions, usually as part of his wider historical analysis of price movements in England over the period 1792 to 1856. To this end, a concern of this study will be to discover Tooke's 'system' of political economy and what shaped it. An understanding of the unified nature of Tooke's economics will enable a more complete comprehension of his monetary thought, which is the main purpose of this study.

The chronology of this study is dictated by the manner in which Tooke developed his monetary thought over time, culminating in his banking school theory. In this regard, Tooke can be described as an 'inductive' thinker in the sense that he believed the robustness of economic principles could only be verified by empirical findings. Tooke's scientific method basically consisted of establishing the concrete facts by exhaustive empirical analysis upon which explanations of general application could be formulated. This method did not preclude Tooke from employing existing economic theory in empirical analysis; indeed, it would be impossible to determine the scope of empirical inquiry or interpret its finding without theory for guidance. Rather, for Tooke, the development of economic theory proceeded from empirical analysis. Tooke's scientific method involved laborious analysis, the dismissal of theories which

could not be empirically verified and the slow development of principles. In this manner Tooke slowly developed his own monetary thought from his empirical work. Therefore, before considering Tooke's monetary thought, this study will examine his empirically based explanation of price movements in England over the period 1792–1856. Moreover, in conjunction with other evidence, from Tooke's empirical analysis, it is possible to ascertain his method of analysis and theoretical approach to value and distribution as well as his theory-based arguments on a range of other relevant economic issues. In this way it is shown Tooke did possess a coherent theoretical framework as a necessary starting point to conduct his empirical analyses and upon which he subsequently built.

Chapters 3, 4 and 5 are concerned with these foundational elements of Tooke's work. In Chapter 3, the theoretical framework in classical economics that Tooke employed in his empirical analysis and upon which he developed his monetary thought is elucidated. Chapter 4 is concerned with Tooke's explanation of the movement in the price of agricultural commodities, consisting principally of corn, which was an important part of his explanation of the movement in the price level in general. In Chapter 5, Tooke's explanation of the movement in the general level of prices, consisting of the change in the prices of a range of products in addition to agricultural commodities, is considered. Having expounded the foundational elements, Tooke's monetary thought is comprehensively examined in Chapters 6 and 7. There is agreement among scholars who have closely studied Tooke's monetary thought that there are two main phases in its evolution (Gregory 1928: 16–17, 69–83; Arnon 1991: 2–3; Pivetti 1991: 75). Chapter 6 is concerned with the first phase, the pre-banking school phase, comprising Tooke's writings and parliamentary evidence from 1819 to 1838 when his monetary thought remained, albeit uneasily, within the bounds of the orthodox quantity theory approach of the classical economists. Chapter 7 is then concerned with the second phase, the banking school phase, comprising Tooke's writings and parliamentary evidence from 1840 to 1857, when he developed a novel set of principles more consistent with his empirical findings and in opposition to the classical economists' quantity theory of money. This set of principles formed the basis of Tooke's banking school theory. In these two chapters, consideration is given to the nature and causes of the transformation in Tooke's monetary thought. The last stage of this study is concerned with Tooke's legacy to economic science. By way of conclusion, Chapter 8 identifies the main lines of Tooke's influence on the development of monetary economics and the constructive value of his key ideas to contemporary economic theory.

Preliminary to undertaking the main part of this study, Chapter 2 provides an account of Tooke's life and his contributions to political economy, the latter consisting not only of his publications but also his evidence given to parliamentary committees. This survey will provide useful background to the study of Tooke's work undertaken in this book. Before this survey, an account of the commentary on Tooke is given in Section 1 of this chapter, followed in Section 2 by an exposition of the definition of classical economics employed in this study.

1.1 The commentary on Tooke

Most of the secondary literature on Tooke has consisted of brief accounts of his contributions in the context of wider historical studies of English nineteenth-century monetary economics that encompasses the currency–banking school debates of the 1840s. For a long time the most definitive account of Tooke’s work was the ‘Introduction’ by T.E. Gregory to the 1928 reprint of *History of Prices*. It consists of a 120-page account of Tooke’s writings, including a critical examination of his various views on major topics in monetary thought. While Gregory (1928) made a number of useful observations, he did not attempt an analytical exposition of Tooke’s economics. Gregory believed Tooke was a ‘magnificent controversialist’ who stood not among the ‘systematic writers of history, but among the Pamphleteers, the men with an intellectual axe to grind, who are the great glory of English economic literature – do they not include Defoe and Dudley North, Ricardo and Malthus, Jevons and Keynes?’ (1928: 120). This praise masks the highly critical disposition of Gregory to Tooke’s ideas (1928: 28–9, 82–91). As the French historian of monetary thought Charles Rist wrote: ‘Professor Gregory finds more to criticise than to praise in [Tooke’s] works’ (1940: 182). There is no doubt that Gregory’s interpretation of Tooke is heavily coloured by a strong attachment to the tradition of the quantity theory of money (see 1928: 22–3). It is not going too far to conclude that Gregory’s (1928) introduction to Tooke’s *History of Prices* ranks as one of the most unsympathetic introductions ever written for an author’s re-published work in the history of economic thought.

The fullest study of Tooke so far undertaken is Arnon’s book, *Thomas Tooke: Pioneer of Monetary Theory* (1991). In contrast to Gregory (1928), Tooke is given sympathetic treatment by Arnon, who considered ‘Tooke’s writing[s] to include a theoretical structure, which merits scholarly attention on several grounds’ (1991: 1). For Arnon (1991), Tooke merits attention as the pioneer of the ‘innovative’ banking school theory. Arnon’s book examines the evolution of Tooke’s monetary thought from his emergence as a political economist and ‘ally’ of Ricardo to the development of his banking school views. According to Arnon (1991: 4, 74–7, 113–15), Tooke’s lasting contribution to monetary thought consists of showing the important role of credit in explaining variations in economic activity and prices. However, Arnon (1991: 115) also considered Tooke’s ‘silence on the determination of the quantity of credit remains the weakest point in his analysis’. Notwithstanding a sympathetic treatment, it is apparent Arnon (1991) struggles to discover a coherent system of economic analysis in Tooke’s work (particularly, see 113–16). This is reflected in the many gaps in Arnon’s account of Tooke’s contributions, especially of the latter’s explanation of price movements and of his banking school theory, as well as his substantial influence on the development of monetary thought.

Another study exclusively devoted to Tooke’s contribution is Laidler’s essay, ‘Thomas Tooke on Monetary Reform’ (1975). This essay deals with Tooke’s views on English banking policy in the currency–banking school debates of the

1840s. Though Laidler (1975) is predominantly concerned with practical issues of policy, the discussion considers, albeit briefly, some of the central ideas of Tooke's banking school theory. For the most part, Laidler is more sympathetic to Tooke's position on banking policy than that of the currency school, concluding that 'on the whole Tooke's programme is a more appealing one than that of the currency school' (1975: 223). However, with respect to Tooke's banking school theory, Laidler is critical, believing it not to be 'logically complete and rigorous ... where critical pieces of it are missing or badly set out, and where extraneous matters intrude unduly' (1975: 211).

Other secondary literature on Tooke has either accounted for his contributions as part of a wider study of monetary thought or been concerned with particular aspects of his monetary analysis. A lengthy account of Tooke's writings is given by Charles Rist in *History of Monetary and Credit Theory: From John Law to the Present Day* (1940). In chapter 4 of this book, Rist compared Tooke's views on a range of monetary issues with those of Ricardo, concluding that 'Tooke the Historian' is the superior counterpart to 'Ricardo the Logician' because '[H]is conclusions are always preceded by a detailed description and analysis of facts, and are so superior to and much more comprehensive than the Ricardian simplifications' (1940: 180). In chapter 5, Rist (1940: 202–38) examined Tooke's banking school theory, focusing on his distinction between money and credit and the important role he ascribed to credit in the operation of the monetary system. Rist (1940: 202–38) claimed Tooke to be the 'creator of the credit theory', anticipating the twentieth-century approach to monetary theory of Wicksell, Hawtrey and Keynes (a view shared by Spiegel 1971: 351–2, 592). Nearly waxing lyrical, Rist further wrote 'that his books are full of original and sound ideas' in which '[H]e illuminates every aspect of every problem which he discusses – the role of banks, the nature of bank-notes and cheques, the origin of crisis, the rate of interest' (1940: 181–2). But, while Rist had a high opinion of Tooke's writings, he did not believe them to contain a coherent monetary theory, commenting 'Tooke was no theorist' (1940: 191). A sympathetic account of Tooke's banking school views is also given in Green's (1992) historical study of theories of money, output and inflation in classical economics. However, Green (1992) is more concerned with examining the position of the banking school as a whole in the currency–banking school debates of the 1840s than with Tooke's position per se. Nevertheless, in relation to issues relevant to a 'fiduciary' and 'credit' system of money, Green (1992: 154–60, 171–2, 179–203) discusses many aspects of Tooke's banking school position. Essentially, Green argues that the banking school provided a more sophisticated analysis of the operation of a credit-based monetary system than Ricardo and the currency school, but that this 'progress' 'was gained at the expense of internal consistency; for, by accepting the Say's Law assumption of full capacity utilisation, they could explain concrete conditions only by going beyond the limits of existing classical doctrine' (1992: 182; on this issue, see Section 8.4: 219).

A highly critical account of Tooke and the banking school is given in Daugherty's (1942; 1943) twin articles on the currency–banking school controversy.

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Daugherty believed that banking school theory largely consisted of a ‘mass of obscure, disorderly, and often fallacious ideas’ (1943: 251). Unable to discover any coherency in the ‘doctrines’ of the banking school, Daugherty (1942: 148–55; 1943: 246–7) provided only a brief and unsystematic discussion of them. Another highly critical interpretation of Tooke and the banking school is given by Mints (1945: 86–100, 121–2) who was particularly critical of the idea that the quantity of money was endogenously determined by the ‘wants of trade’ and, connectedly, of the law of reflux. However, Mints’ unsympathetic account of banking school doctrine is piecemeal, being only a small part of a wider study of monetary thought.¹ By contrast, Morgan (1965: 120–43) provides a more balanced account of Tooke and the banking school in his discussion of the currency–banking schools controversy. However, Morgan (1965) gives little consideration to banking school theory, concentrating on the practical policy issues surrounding the Bank Charter Act of 1844. Morgan (1965) tends to emphasise the common ground of the two schools of thought. He believed the banking school made an important contribution toward understanding the operation of credit in the British monetary system and the motives for demanding gold, but was critical of their argument that the ‘over-issue’ of banknotes fully convertible into bullion was not possible.

A piecemeal account of Tooke and the banking school is also provided by Fetter (1965: 172–3, 187–94) in connection with the currency–banking school controversy. The main concern of Fetter (1965) is with the actual influence of these two schools on public debate and British banking policy. While believing Tooke to be inconsistent in some of his views, Fetter (1965: 173, 191–2, 204) nevertheless believed him to possess a better understanding of the practical operation of the monetary system than members of the currency school. Elsewhere, though, in a short biography of Tooke, Fetter (1968: 104) commented that Tooke ‘had little ability to develop an organised monetary theory’. In Wood’s (1939) study of nineteenth-century English theories of monetary policy, Tooke’s views are not systematically dealt with, but are briefly considered in relation to specific issues under discussion (see 44–5, 49–50, 56–9, 140–3, 150–1, 179–80). Nevertheless, Wood (1939: 56–9) devotes particular attention to Tooke’s denial of the Bank of England’s influence on prices, concluding that ‘Tooke really had *no* theory to explain how monetary causes were related to prices’. An account of the position of Tooke and the banking school is also given in Robbins’ (1958: 121–43) study of Robert Torrens’ contribution to classical economics. However, Robbins (1958) was concerned mainly with Torrens’ criticisms of the banking school and, for the most part, provided an unsympathetic account of their views. In a concise assessment of his contributions, Schumpeter (1954: 520–1) praised Tooke for the empirical analysis of *History of Prices*, but was highly critical of him as a theorist. Indeed, Schumpeter referred to Tooke as a ‘woolly thinker’, lacking a ‘theoretical edge to his thought’ and ‘deficient in command of economic theory’ (1954: 520–1). Even more damning, Schumpeter wrote that Tooke ‘had no notion of the logical relation between observation and analysis and never understood what facts may, and what facts may not, be adduced in verification

or refutation of a theory' (1954: 709). Some aspects of Tooke's banking school theory were also critically examined in Marget's (1938: 189–205, 249–58, 311–27) book on twentieth-century monetary theory. For the most part, Marget (1938) presents Wicksell's original criticisms of Tooke's theory. In other historical studies of monetary economics by Viner (1937: 222–4, 233–8) and Feaver-year (1931 [1963]: 264–70), Tooke and the banking school receive very little serious attention.²

A small group of commentators have been more specifically concerned with Tooke's position on the relationship between the determination of the rate of interest, rate of profit and prices. In his article 'The Theory of Interest in the Classical Economists', Caminati (1981: 98–101) examines Tooke's theory of interest and, in particular, compares it to that of J.S. Mill and Marx. A more thorough examination of Tooke's monetary analysis in connection with interest-rate determination is provided in Panico's book, *Interest and Profit in the Theories of Value and Distribution* (1988: 21–45). In this book Panico (1988: 37–8) shows how Tooke's position on interest and profit could form the basis of a theory of distribution in classical economics. The latter subject is also taken up by Pivetti (1991: 38–9, 74–86; 1998),³ who is mainly concerned with showing that Tooke's position on the relationship between the rate of interest and prices provides the foundation for an explanation of distribution relevant to a modern capitalist economy. In connection to this subject matter, Pivetti (1991: 75–81) examines some aspects of Tooke's banking school theory, especially the conception of endogenous money. An appreciation of Tooke's banking school theory has also been shown by Moore (1988: 5) and Wray (1990: xiii, 102–10), contemporary advocates of theories of endogenous money. Unlike most of the commentary surveyed above, these commentators have a positive opinion of Tooke as a monetary theorist, believing his banking school ideas provide a valuable contribution to contemporary monetary analysis but not in the quantity theory tradition (see Sections 8.4 and 8.5).

This survey supports the point made earlier that, with some notable exceptions, most commentators in the literature have formed a negative opinion of the constructive value of Tooke's contributions. While they have valued the historical content of Tooke's empirical analysis and been sympathetic to his practical views on banking policy, they have been largely dismissive of his banking school theory. This opinion largely stems from an inability to discover a coherent economic analysis in Tooke. It perhaps best explains why there have been few attempts to provide a comprehensive exposition of Tooke's political economy in the literature. Economic science would therefore benefit from a comprehensive study of this neglected economist able to discover the coherency in his political economy from its theoretical roots in nineteenth-century classical economics.

1.2 Tooke and classical economics

Tooke is commonly characterised as a classical economist. However, there is not general agreement on what 'classical economics' or, the equivalent term,

‘classical political economy’, is. There are indeed various definitions of classical economics to be found in the literature, although the most commonly accepted ones *date it* from Adam Smith through Ricardo to J.S. Mill (Blaug 1987). In this respect there is certainly considerable agreement as to who the classical economists are, notwithstanding differences in what classical economics is. Hence, as a contemporary of Ricardo and a much younger J.S. Mill, Tooke has been largely regarded as a classical economist of second-order importance, along with James Mill, Torrens and McCulloch but in ranking of contribution, below Malthus, Say and Senior. While one could disagree about Tooke’s relative importance, it could not be denied that Tooke is a classical economist in the sense that his intellectual bearings come from a framework largely shaped directly by Adam Smith and Ricardo. But the question remains: what is classical economics which somehow defines coherently the intellectual framework within which Tooke’s economics operated?

Classical economics is most usefully defined by the central unifying concept that characterises its analytical approach to economic problems. This central unifying concept is ‘social surplus’ on the grounds that it lies at the heart of the analytical structure of classical economics. Social surplus is conceived of as that part of the annual gross product of an economic system that remains after deducting that which is necessary for its reproduction, consisting of the replacement of the means of production and the subsistence of employed workers. The social surplus is therefore the residual part of the annual product that can be freely disposed of by society without affecting the reproduction of the existing annual product. It is this concept of social surplus that gives coherency to classical economics as a body of economic thought. Accordingly, classical economists most responsible for the development of this body of economic thought have employed what is referred to as the ‘surplus approach’ to value and distribution. This surplus approach had its beginnings with William Petty in the seventeenth century, was progressively developed by eighteenth-century writers, Cantillon, Quesnay (leader of the French physiocrats), Turgot, James Steuart and Adam Smith, and, then, in the nineteenth century, by Ricardo and Marx, before being rehabilitated in the twentieth century by Piero Sraffa.⁴

From the beginning, classical economists believed that a social surplus was a necessary but not sufficient condition for the economic development of society. The expansion in productive capacity (or ‘wealth’) of society rather depended on the manner of disposal of the surplus which, in turn, required examination of those factors governing its distribution among the social classes into which society divided. Hence, the determination of the size of the social surplus and its distribution among social classes has been a central focus of classical economics around which its basic theoretical structure developed. This basic theoretical structure can be outlined by consideration of the datum necessary to determine the social surplus (see also Kurz and Salvadori 1998c: 162–3):

- 1 the size and composition of the social product (or, alternatively, the annual gross outputs of products);

- 2 the *social* real wage consisting of the quantities of the several commodities making up the wage rate as minimally required by the standards and conventions of society;
- 3 the surplus real wage, being the *ruling* real wage rates in excess of the social real wage or, alternatively, the normal rate of profits;
- 4 the dominant technique of production;
- 5 the quantities of different qualities of land available for use and the known stocks of depletable resources, such as mineral deposits.

The maximum social surplus available for distribution is determined on the basis of (1), (2), (4) and (5), while its distribution between wages and profits (and rent) will depend also on (3).⁵ As Sraffa (1960) showed, on the basis of this datum, relative prices can be determined (in terms of a numeraire) simultaneously with the distribution of income at which a uniform net rate of profit on capital is established by competition.⁶

The surplus approach adopted by classical economists has a number of distinctive features. First, all the datum above used to determine prices and distribution is objective in the sense that it is observable, and measurable or calculable (Kurz and Salvadori 1998c: 162). Second, classical economists adopted the 'long period method', whereby they focused on identifying the persistence forces determining the normal or natural values of economic variables. These normal values are conceived to be centres of gravitation of actual observable or market values established at long period positions of the economic system. Under conditions of 'free competition' these long period positions are, in particular, characterised by a uniform net rate of profit on capital employed in the production process. Hence, the surplus approach to value and distribution is primarily concerned with explaining the normal prices of products and the normal distribution of income between wages and profits (and rents). On the basis of their long period theories of normal values, classical economists developed short-period analyses to explain market values determined by temporary forces operating in the economic system (more on this in Section 3.1). Third, distribution is determined in this approach on the basis of either the real wage or the rate of profit being taken as exogenous so that the other distributive variable is residually determined, along with prices for a given technique. In turn, rent on the intra-marginal value of natural resources employed in production is then determined (for a substantial treatment, see Kurz and Salvadori 1995: 277–311, 351–74). Hence, in classical economics, the distributive variables are determined *sequentially* in which distribution is explained by reference to socio-economic, political and institutional factors that determine the exogenous distributive variable. Classical economists traditionally took the real wage to be the exogenous distributive variable.

A fourth feature of classical economics is the *separability* between the analysis of the determination of the social product (i.e. level of output) and its composition on the one hand and the analysis of the determination of distribution and prices on the other hand. As shown above, the determination of (relative) prices and income

distribution is at the core of the classical theoretical structure, requiring the *prior* determination of its data: output (and its composition), the technique of production and either the real wage or general rate of profit. In this theoretical structure, as clearly articulated by Garegnani (1984; 1990a), these data lie outside the core, each determined by a separate analysis. Whereas at the core prices and distribution are conceived to be determined by precise quantitative relations, outside the core gross outputs, the exogenous distributive variable (either the real wage or profit rate) and the technique of production are conceived to be determined by socio-economic, political and institutional factors less conducive to representation by quantitative relations.⁷ This separability means that just like distribution the level of social output is open to various explanations. After Adam Smith, classical economists supposed that the output of each commodity was determined by its effectual demand while explaining the determination of aggregate output by reference to the ‘stage of accumulation’ of the economy (see Section 3.1). Notably, the classical economists did not consider competitive forces operated so that the aggregate level of output determined at long period positions corresponded with the full employment of labour.

The surplus approach of classical economics is very different to the ‘supply-and-demand approach’ of marginalist economics. This is most evident in the different data required to determine prices and distribution. In marginalist economics the data required to determine prices and distribution in general equilibrium theory are (1) consumer preferences (including in relation to saving–consumption decisions), (2) the technical conditions of production and (3) the endowments of resources, including labour and capital, available for production and distributed among agents in the economic system. The main difference with the classical approach and which essentially defines the marginal ‘optimisation’ method is data (3) which impose the market-clearing condition that equilibrium in the system is characterised by the full-employment of labour, capital and other inputs.⁸ Datum (3) is the basis in marginalist economics for conceiving that equilibrium prices, including factor prices, are determined by conditions of scarcity. Another important difference that follows from this approach is that prices and distribution in equilibrium are determined *simultaneously* with the outputs and the fully employed quantities of inputs used to produce the outputs. Hence, unlike classical economics, in marginalist economics the analysis of the determination of the level of output and of its distribution is inseparable. Furthermore, the monotonic functional relationship between quantities and prices supposed by the demand and supply functions for products and inputs which, conceptually, underpins the stability of competitive equilibrium in marginalist economics, cannot be logically derived in classical economics.

In its seminal development the pioneers of marginalist economics, notably Marshall and Wicksell, adopted the long-period method employed by the classical economists so that competitive equilibrium was characterised by uniform rates of remuneration on inputs of the same kind. However, since the Second World War, this method has been gradually abandoned in marginalist economics with the formulation of temporary and inter-temporal general equilibrium theory,

based on specifying not only the aggregate value but also the physical composition of endowed resources in which competitive equilibria determined are characterised by market-clearing corresponding to non-uniform net rates of return on capital (Garegnani 1983b; 1987: 44–60; Kurz and Salvadori 1995: 20–33, 455–67; Petri 2004: 136–65).

Following Marshall's 'continuity thesis', a common interpretation of the history of economic thought is that classical economics is an embryonic forerunner to marginalist economics in the seamless development of economic science. Given the fundamental theoretical differences between them, this continuity thesis rests heavily on the contention that marginalist economics is scientifically superior to classical economics in explaining economic phenomena. However, this contention is undermined by the capital debates of the 1950s and 1960s which demonstrated the impossibility of logically quantifying an aggregate value of capital independent of distribution and, consequently, of defining well-behaved demand functions for inputs, in a generalised economic system that produces heterogenous commodities by means of heterogenous commodities.⁹ This critique strikes at the very heart of the marginalist approach to value and distribution, invalidating the scientific basis of its determination of stable competitive equilibria relevant to a decentralised capitalist society.

In Sraffa's (1960) important contribution to these debates, the critique of the marginalist approach was intricately connected with the rehabilitation of classical economics by the formulation of a general solution to the problem of determining the rate of profit and relative prices which had been left unsolved by classical economists, in particular Ricardo and Marx, and which had been a major cause for the decline of classical economics. By re-discovering the surplus approach of the classical economists and reconstructing its analytical formulation, Sraffa (1951; 1960) revived classical economics.¹⁰ With this revival there have been two particular lines of theoretical development that are pertinent to what later follows in this book. The first consists of explaining the level of social output and its growth by reference to Keynes's principle of effective demand. As shown above (pp. 9–10), in the theoretical structure of classical economics the level of social output is open to explanation, which allows its determination and its growth to be explained by Keynesian demand-led theory (Garegnani 1983a: 61–3). The other particular line of theoretical development is explaining distribution by taking the rate of profit rather than the real wage as the independent distributive variable. This explanation, elaborated in Section 8.4, is considered more relevant to modern capitalist society. It also has significant implications for monetary theory in classical economics. The body of economic theory that has developed with the revival of the analytical approach of the classical economists we shall refer to as 'modern classical economics'.

Any definition of classical economics is bound to be a generalisation given the heterogeneity of contributions by those identified as classical economists (Steedman 1998: 117–20). As will be shown in what follows in this book, Tooke's work is mainly concerned with monetary behaviour and makes no direct contribution to the core theory of value and distribution. Nonetheless, the surplus

approach to value and distribution that took different forms in the writings of Adam Smith and Ricardo provided the theoretical basis for Tooke and other nineteenth-century classical writers to conduct studies in more specific fields of analysis. The definition of classical economics employed here is therefore wide enough to capture most but not all writers of significance on political economy before the ascendancy of marginalist economics in the 1870s.¹¹ According to our definition, from its inception by William Petty in the 1660s, historically, classical economics dominated economic science for over 200 years before marginalist economics took over and came to dominate. Classical economics did not end in the 1870s but was submerged until rediscovered, chiefly by Sraffa, and revived from the 1950s onwards.¹² The outlook of this book then is that classical economics is not just of archaeological interest but is a living body of theory which today represents a genuine alternative long-period theory to the supply-and-demand approach of marginalist economics. From this perspective, the contributions of the classical economists of which Tooke is one warrant close study not just in order to understand the history of economic ideas but because they are capable of advancing contemporary economic science.