Expressions of dissatisfaction with various aspects of economics, including its methodology, are not new. A random perusal of the literature reveals the existence of polemical titles such as Ward's *What's Wrong with Economics?* (1972) and Threw's *Dangerous Currents: The State of Economics* (1983), both written by economists. That much of the critique of the subject emanates from within augurs well for the future of economics. Serious periodical reflection on, and objective review of a discipline by its practitioners are part of a healthy critical process which, provided it shuns complacency, will ensure the discipline's continued progress. That, of course, begs the question of what constitutes progress, a question made all the more problematical in the social sciences, where the contentious issue of the real world and the relationship of theory to that world must inevitably be addressed.

Backhouse's relatively small volume is a worthwhile contribution to the debate about the future of economics, specifically mainstream, neoclassical economics. Although the author describes it as "a unique blend of economic history and the history of economic thought" (p.xi), its fundamental purpose is to question the present state of economic methodology and the substantive content of the subject. As Backhouse states, "The main motivation for this book is the idea that economists have placed excessive emphasis on theory" (p.231). How this situation has developed and the author's arguments against inordinate theorising, form the principal subject-matter of Chapters 1 ("Economics and Its Past"), 6 ("The Theory of a Market Economy") and 7 ("The Discipline of Economics"). To a large extent, these three critically oriented chapters stand apart from the remaining four (Chapters 2 to 5) in the sense that each of the latter deals with a particular theme or economic problem (for example, Chapter 2 is entitled "Growth and Development"), as distinct from essentially methodological problems in economics. It is especially in the four central chapters that Backhouse's attempt to combine economic history and the history of economic ideas is most apparent, his aim being to stress "the dependence of [economic] ideas on their historical context" (p.4).

The brief "Historiographical Introduction" (pp.1-9), a new inclusion in this the second edition, is essential preliminary reading. This section is clearly intended to show how Backhouse's approach to the interpretation of the history of economic ideas has developed since the first edition. The author's analysis of different taxonomic approaches to the history of economic thought leaves the reader in no doubt about his rejection of "the dominant perspective on economics" (p.8) which results in "a hierarchy in which abstract theory is on top, with empirical studies at the bottom" (p.8). Not surprisingly, Backhouse is opposed to "The tendency to organise histories of economic thought around developments in abstract theory" (p.8), favouring instead "problem-centred histories" (p.9). Underlying the author's argument is his belief that "economic theory ... is [not] prior to empirical observation" (p.8). Although he acknowledges his adoption of a Lakatosian "rational reconstruction" (p.5) and partly "presentist" (p.7) approach, which enables him to use present-day ideas to analyse past ideas, Backhouse is also concerned to underline the polemical intent of his book. Thus, there is no contradiction in his claim that his *Economists and...*
the Economy is also "anti-presentist" in that its aim is to question both the conventional picture of the relation between theory and empirical economics, and the reading of the history of economic thought which follows from that" (p.9).

The relationship between economic theory and the real world is the main focus of the first chapter. There Backhouse argues that much of contemporary theory is irrelevant to everyday problems. The reasons for the widening impasse between economic theory and the real world include the increased emphasis on the use of mathematics and econometrics as "tools of abstraction" (Baumol 1991, p.3). Cited by Backhouse, p.13). Arguing that "mathematical values have taken over" (p.18), Backhouse voices his opposition to formal mathematical analysis in economics on the grounds that it amounts to no more than "game-playing" (p.18). Further evidence of the author's concern about the mathematization of economics is provided in Chapter 6, which is discussed below.

Backhouse's hostility towards the use of mathematics as a tool of economic analysis explains his reservations about trying to understand contemporary economics solely by examining "economic theories and how they are related to real-world problems" (p.19). As a more reliable basis for that understanding, he advocates "The Need for a Historical Perspective" (pp.19), which he justifies by noting that "the subject matter of economics ... is constantly changing" (p.19), as is the context in which "perennial" (p.19) economic problems occur. Thus, because "changes are going on all the time ... economists have to change their ideas accordingly" (p.19). Backhouse stresses that while the historical perspective he advocates requires the study of economic history, it must also include the study of the history of the discipline of economics. As he notes, "If we examine the history of the subject we find different ways of thinking about things" (p.19). The basis of this proposition and Backhouse's insistence on a historical approach to economic analysis is, arguably, his belief that the principle of empirical falsifiability must apply to "any scientific theory, whether in economics or any other subject" (p.19). Thus, in the author's view, no economic theory can be, or should be, regarded as sacrosanct.

Given his twofold purpose of writing a volume of modest proportions combining economic history and economic ideas, Backhouse was understandably forced to be "selective" (p.xi) in respect of the topics he used to illustrate the relationship between economic theory and empirical evidence. The topics include "Growth and Development," "The Regulation of Trade and Industry," "Money and Inflation" and "Employment and Economic Growth," Chapters 2 to 5, respectively. The author justifies the limited range of his selection of topics by saying that they deal with "episodes in economic history that I think economists ought to know about" (p.xi). Backhouse clearly regrets, as must his readers, that space limitations have led to the omission of other topics; for instance, "public finance ... [which] has been an important stimulus to economic thought" (p.xi).

If allowance is made for the author's non-exhaustive selection of topics and their concise treatment, Backhouse's attempt to blend economic history and the history of economic thought in Chapters 2 to 5 is something of a tour de force. The structure of these chapters follows a standard pattern. Episodes in economic history are interspersed with the author's presentation and critical analysis of pertinent economic theories put forward by writers of the period under examination. Statistical and illustrative data abounds in the form of graphs and tables. Of particular significance are each chapter's conclusions, which in the main reflect Backhouse's underlying argument that a dissonance can exist between the ever-changing world in which economic history is fashioned and the world of economic ideas and theory. For instance, so far as growth and development are concerned, the author argues that though "there has...been considerable progress in dealing with problems of growth," growth theory is an area "where much theorising has lost contact with any real-world problems" (p.60). Similarly, at the end of the chapter on "Money and Inflation," Backhouse notes that in spite of the institutional changes that have occurred in money and finance since the middle of the eighteenth century, "the quantity theory has remained essentially the same from Hume to Friedman" (p.149). The author concedes that empirical data has provided "a check on theoretical developments" (p.149), for example, in the treatment of the quantity theory by
Irving Fisher, Wicksell and Friedman. The fact remains, however, that "In the development of the quantity theory, empirical evidence has always been of limited importance compared with theoretical arguments" (p.149).

In terms of Backhouse’s critical stance on methodology, Chapter 6, "The Theory of a Market Economy," is, for this reviewer at least, the most satisfying. The author indicates that what he perceived as a trend "towards more formal theorising" (p.ix) led him to re-write the chapter, "the result being a perspective on contemporary economics which is much less optimistic than that adopted in the first edition" (p.ix). The source of Backhouse’s diminished optimism is what he defines as “the main theme” of the chapter: “How a body of thought that was so closely concerned with practical, real-world problems developed into something akin to a branch of mathematics” (p.196).

The author’s rapid survey of the contributions to market theory by mainly English-speaking economists from the sixteenth to the nineteenth century acts as a backdrop to his examination of the genesis and growth of mathematical economics. He argues pointedly: “The most significant event in the rise of mathematical economics was the so-called “marginal revolution”… Jevons and Walras recognised each other as having a common purpose: the development and propagation of mathematical economics” (p.210). 4

According to Backhouse, the subsequent specification of a set of equations to define general competitive equilibrium had the effect of making the equilibrium concept “much more abstract and less realistic” (p.211) than Smith’s. Not even Marshall, “the dominant figure in economics in the late nineteenth and early twentieth centuries” (p.3), whose “main concern was to be realistic” (p.213) and who was also “extremely wary of mathematical economics” (p.212), as evidenced by his “literary” exposition in the Principles, was unable to stem the tide of “a more formal type of equilibrium analysis” (p.213). 5 In the event, the “formal structure” (p.216) of the theory became more important than its relationship to the real world. Epitomising this development is the approach taken by Debreu, “that economics cannot be empirically based and must attach prime importance to logical consistency” (pp.216-217). Contrast this with Backhouse’s statement that, according to Marshall, “the theorist must immerse himself in empirical evidence before starting to theorise” (p.214). 6

Backhouse infers that the progressive refinement of general equilibrium theory has been its own undoing. If “in the general case anything could happen” (p.217), the explanatory value of the theory is patently non-existent. The understandable abandonment of a general approach to theory in the 1950s and 1960s has seen the increasing use of “exemplifying theory” (p.217) to explain real-world phenomena. However, the “stripped down” (p.15) nature of exemplifying theories is such that the resultant models (which, by definition, are “special cases”) indicate “what might happen, but not what will happen” (p.217). Backhouse’s concern that a theory must possess the ability to explain real-world economic events leads him to argue that the present-day theory of a market economy bears little, if any, relationship to that of Adam Smith, which, although it “was a relatively simple one … remained fairly ‘realistic.’” The reason for this is … that the concepts analysed in the theory were easily understood generalisations about a real economy” (p.206). This underlines Backhouse’s thesis that “If economic theories are to be given any meaning, they have to be clothed in assumptions and evidence about the real world” (p.4).

The concluding chapter, “The Discipline of Economics,” reiterates and extends Backhouse’s earlier arguments concerning the relationship between economic theory and empirical data. Although concerned to reduce the dominance of theory, the author rejects “naive induction” (p.222) as the means of giving empirical phenomena greater prominence. At the same time, he rejects the methodology associated with “naive falsificationism” (p.225). In this regard, he cites the work of McCloskey, 7 who argues that the approach taken by economists such as Samuelson and Muth 8 (to name, presumably, only two) is imbued with a “rhetoric” (p.222) which disguises their failure to test their theoretical postulates empirically. 9 In his quest for the most appropriate relationship between economic theory and empirical evidence, Backhouse favours the use of Lakatos’s “Methodology of scientific research programmes” (p.226). Among the reasons given is
that Lakatosian "Progressive research programmes ... change over time, but in such a way that their ability to predict new facts is enhanced" (p.227). Albeit he recognises that "Prediction in economics is fraught with problems" (p.230), Backhouse confirms his support for Lakatos's approach by arguing that "economists can successfully predict the consequences of fiscal and monetary policies" (p.230).

Lakatos's methodology also emphasises the appraisal of "programmes, or sequences of theories, and not just individual theories" (p.227). The sequential nature of economic theories is behind Backhouse's conclusion that since "there is great continuity in the problems faced by economists" (p.228), it is possible to ask if economists have developed "theories which provide better explanations of what is going on in the economy" (p.229). This is the ultimate criterion for deciding whether progress has occurred in economics. As he states, "Progress in economics involves more than simply theoretical progress" (p.230). That said, Backhouse's very brief concluding observations on "The Limitations of Economic Theory" (pp.231-232), which rely heavily on pronouncements by Marshall, are superfluous.

Concluding Remarks

Backhouse is no iconoclast. Notwithstanding the seeming virulence of his observations on abstract economic theory, he is in fact advocating a more balanced perspective so far as the relationship between economic theory and empirical evidence is concerned. It is not theory per se that he considers the culprit, but "excessive ... theory" (p.231), whose gradual refinement impairs its ability to explain adequately real-world phenomena. Hence one of his final comments in Economists and the Economy that "Economics ... comprises much more than theory" (p.231). This suggests, incidentally, that the sub-title of the book, "The Evolution of Economic Ideas," is inappropriate; more to the point would have been the book's last sub-heading, "The Limitations of Economic Theory," which is, in fact, the thrust of Backhouse's argument.

The timely reconsideration (for that is what it is) of a vital methodological issue, the role of mathematics in economics, is arguably one of the most important contributions made by Backhouse. He is clearly not among those who hold that "Economics is...inherently mathematical" and that "There is no dichotomy between 'economics' and 'mathematical economics'" (Archibald and Lipsey 1977, p.3). Rather he implicitly shares the opposing view of economists like Thurow, who argues:

Expression in mathematics imparts to the theory a seeming rigor and internal strength. But that rigor easily degenerates into scholarly rigor mortis, as mathematical facility becomes more important to the profession than a substantive understanding of the economy itself. To express an idea mathematically gives it the illusion of unassailable truth (Thurow 1983, pp.xiv-xv).10 Backhouse mounts a convincing case for solving the problem of the increasing mathematisation of economics by advocating the adoption of (return to?) an empirically based approach. That is, after all, the purpose of the economic issues dealt with in Chapters 2 to 5, the bulk of the book, where the author illustrates his argument with a wealth of data from economic history and the history of economic ideas. A correct perspective of Backhouse's empirical approach must, however, be maintained. The author stresses that "Some sort of theorising is essential" (p.222). To emphasise a previous point, Backhouse has no quarrel with economic theory, but with the mathematisation that divorces it from "practical, real-world problems" (p.196).

Backhouse's adherence to Lakatos's "Methodology of scientific research programmes" (MSRP) (p.226) as the means of relating economic theory and empirical evidence, is problematical, a fact recognised by the author himself (p.227). Some of the difficulties associated with MSRP in economics have been canvassed by Blaug (1986) and Coats (1993). For instance, referring to "Lakatos's influence on the history and methodology of economics," Coats observes that it is "an influence that now clearly seems to be waning rapidly. In part this is but one manifestation of a more general movement away from the earlier fashion of applying comprehensive philosophical and methodological frameworks to economics, or indeed to other scientific disciplines" (Coats 1993, p.181). This would suggest the need for further debate and
research on the most appropriate methodology to analyse and explain the uneasy relationship between economic theory and empirical evidence. Some years ago, one writer argued that if a "further...methodological 'revolution'" were to eventuate it should be "away from the ever more refined cultivation of 'general' models or 'theories', usually extremely abstract and possessing a very tenuous empirical content, if any" (Hutchison 1978, p.319). A reading of Backhouse's *Economists and the Economy* seems to indicate that, sixteen years later, that argument is still relevant.

Despite its concise treatment of economic history, the history of economic ideas, and methodological problems in economics, Backhouse's book can be read profitably by economic historians and historians of economics. It should also be obligatory reading for economists whose stock-in-trade is mathematical economics, if only to remind them that "An obsession with mathematics can be equivalent to the imposition of order on a system in which no such order necessarily exists, and a mathematical interpretation might, in such cases, take us even further away from the understanding of real-world relationships" (Whynes 1983, p.30).

A final comment on the quality of the proofreading in what is a most thought-provoking book, cannot be avoided. In a small volume such as this the number of errors detected is, by any reasonable standard, excessive. While some typographical errors may escape even the most diligent proofreader, the errors (and what are obviously editorial oversights) in the book are not exclusively of this kind. For instance, the reference in the bibliography to "Brewer, A.A (1988) "Cantillon and mercantilism" History of Political Economy" as "forthcoming," while clearly appropriate in the first edition (1988), should have been amended to "Vol.20, No.3, pp.447-465" for the second edition. Moreover, the presentation of a number of the illustrative figures in the book would have been improved by the specification of the units of measurement of the vertical axis (for example, Fig.4.2, p.111) and checking for accuracy (for example, Fig.5.6, p.170).

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Notes

1. This was especially true of the 1970s, when "laments for economics" (Deane 1978, p.222) were expressed by a number of writers, some of whom are listed in Deane (1978, p.223, footnote 29).


3. The Preface to the first edition of Marshall's *Principles* (1890) begins with a very similar statement: "Economic conditions are constantly changing, and each generation looks at its own problems in its own way" (Marshall 1920, p.v).

4. To some extent, Backhouse (p.219) exonerates Jevons and Walras by noting that "Despite the abstract nature of their economics...there was never any doubt...that they were dealing with a conceivable economy."

5. Knight (1963, p.27) indicates that "Marshall was a competent mathematician but used and advocated the 'literary' form of exposition (contemptuously so named by Pareto)" Pareto's assessment of Marshall's attitude to mathematics is unduly harsh, given that the latter "adopted an intermediate position...relegating the mathematics to footnotes and appendixes in his monumental work" (Knight, ibid.).

6. It should be remembered, however, that Marshall (1920, p.24) advocated the use of "both induction and deduction" in economics, "but in different proportions for different purposes."


10. Thurow's observation echoes Heilbroner's: "The prestige accorded to math[s] has given economics rigor, but alas, also mortis" (Quoted in Spiegel 1991, p.667).
References
Ward, B., (1972), What's Wrong with Economics? London: Macmillan