When Giants Walked the Earth

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A Review Article of *The Golden Age of the Quantity Theory: The Development of Neoclassical Monetary Economics, 1870-1914* by David Laidler (Princeton, NJ: Princeton University Press, 1991). Pp. xv + 220. ISBN 0 691 04295 0. Hardback US\$35.00.

David Laidler's fascinating and important book examines the uneasy relationship between the neoclassical quantity theory of money and the evolving gold exchange standard, which was partly a response to the economic orthodoxy of an earlier era and partly the result of historical accident. Laidler considers the decades before the First World War a golden age in two senses: the gold standard expanded with the return of the United States and other countries, and Laidler's three heroes, Irving Fisher, Alfred Marshall and Knut Wicksell, advanced far beyond classical monetary theory.

After a chapter on the monetary orthodoxy of the 1870s, reviewing the culmination of classical monetary economics in the last years of Mill and Cairnes, Laidler concentrates on Fisher, Marshall and Wicksell (whose photographs appear on the dust jacket), with some attention to Edgeworth, Hawtrey and Walras. This careful examination of a handful of outstanding thinkers is a great improvement over Hugo Hegeland's *The Quantity Theory of Money* (1951), which gives potted summaries of many contributions.

The cover photograph of Alfred Marshall might more appropriately have been one of him with Mary Paley Marshall, since 'Output fluctuations, though discussed, were not systematically integrated into orthodox analysis until Alfred and Mary Marshall did so in 1879' (Laidler 1991, p. 20). Laidler mentions Mary Paley Marshall's name only in that passage but cites Marshall and Marshall on Economics of Industry (1879) repeatedly (pp. 26, 89-90, 96-98, 114). The book was originally

to have been Mary Marshall's alone. As Rita McWilliams Tullberg (1992) records, Alfred Marshall later refused permission for *Economics of Industry* to be reprinted, destroyed those copies he could obtain, and appropriated the title for a different, single authored book. The analysis of the credit cycle by the Marshalls is accessible, however, in Alvin Hansen and Richard Clemence's *Readings in Business Cycles and National Income* (1953).

Laidler begins (p. xi) by making an eloquent case for the relevance of history of thought for economic theory, proclaiming that 'I have written this book as much for monetary economists as for historians':

IIIt is simply not the case that everything known to previous generations and still worth knowing, is to be found in modern textbooks. Anyone who believes such nonsense is invited to consider how the textbooks of the 1950s and 1960s treated the quantity theory of money. If this book is easier reading to an economist trained recently than it would have been to someone graduating in, say, 1960, that is because much of what we regard as the progress made by monetary economics during the last three decades has involved the rediscovery of ideas that verged on the commonplace a century ago, but which had become lost in the intervening years. The modern monetary economist still has a few things to learn from the literature surveyed here: exponents of the 'backing' theory of money's purchasing power could do worse than spend an hour or so reading Laughlin (1915). Fisher (1911) or Wicksell (1915) on the subject: advocates of free banking must still deal with the issues raised by the economies of scale which banks can exploit by centralising their reserves, and which were discussed by Edgeworth (1889) and Wicksell (1898): students of currency substitution will find that their models have much in common with those used by Walras (1886, 1889) and Fisher (1894, 1911) to analyse bimetallism; and so on.

Furthermore, the economic theories held in a period affect policy and the behaviour of the economy, the subject of his chapter 6. Laidler's approach, that of writing as a monetary economist for an audience of other monetary economists, is a great strength of the book, providing insights into the theories discussed. It is also a serious weakness, for, in contrast to his command of the primary sources and of contemporary literature in monetary economics, he sometimes seems unaware of what has been written on the history of economic thought. John Cunningham Wood has assembled four volumes of journal articles on Alfred Marshall and three on Jevons in the Critical Assessments series. Laidler cites only three of the articles reprinted in these seven volumes: two by Keynes that were included in the expanded edition of his Essays in Biography and one on Jevons by Laidler himself. J. N.Wolfe's article on Marshall and the trade cycle is omitted, as is other relevant secondary literature: Keynes's centenary article on Bagehot for The Banker and his review of Bagehot's collected works, David Reisman's three books on Marshall, earlier books by Herbert Davenport on Marshall and Edwin Eckard on Jevons, James Tobin's articles on Fisher, Thomas Humphrey on the classical theory of the lender of last resort, the Strom and Thalberg conference volume on Wicksell.

Laidler's second chapter is a brilliant reconstruction of the British monetary orthodoxy of the early 1870s, based on the last edition of Mill's Principles, Cairnes' essays on the effects of the California and Australia gold discoveries, Bagehot's Lombard Street (1873), and Jevons' Money and the Mechanism of Exchange (1875). Laidler sees three weaknesses in the classical monetary economics of Mill and Cairnes as setting the agenda for Fisher, the Marshalls and Wicksell.

First, the classical economists held a quantity theory of money for the short run and a cost of production theory of the value of gold for the long run, but failed to reconcile them by explaining the effect of monetary demand for precious metals on marginal costs in mining. The marginal analysis in the classical theory of rent, and the role of demand in Mill's 'Great Chapter' on international values, were not extended to the general classical treatment of exchange value, and hence not to the exchange value of gold. Laidler (p. 8) notes that 'even such a self-consciously revolutionary exponent of marginal utility theory as Jevons never thought to extend it to monetary economics.' Laidler's discussion might usefully have included Ricardo's chapter 'On the Rent of Mines' which, apart from its troubling extension of classical rent theory to exhaustible resources, established mining as an increasing cost industry. Laidler shows in his third and fifth chapters how Fisher, the Marshalls and Wicksell analysed the influence of monetary demand on the marginal cost of producing precious metals, demoting this to a secondary and remote influence on the quantity of the monetary metals. Laidler presents the introduction of individual choice into monetary economics by these neoclassical economists, with Marshall and his Cambridge disciples stressing the supply of money and stock demand for real money balances while Fisher emphasized the flow of money expenditure and flow of goods.

In addition, British monetary orthodoxy in the 1870s did not clearly distinguish money and credit, so that it had difficulty in integrating its analysis of banking with its theory of the price level. All of Laidler's heroes made contributions here. Fisher rewrote the equation of exchange to allow differing velocities of circulation to currency and bank deposits, the Marshalls studied the credit cycle, and Wicksell is famous for his analysis of the pure credit economy. Laidler (pp. 184-87) draws attention to Edgeworth's important but neglected 1888 application of probability theory to banking, a pioneering exploration of the precautionary motive for holding reserves.

The third weakness of classical monetary economics identified by Laidler is the treatment of cycles as short-run price level fluctuations without explaining either the speculative behaviour driving these price fluctuations or the accompanying output and employment fluctuations. Laidler's fourth chapter on 'The monetary element in neoclassical cycle theory' examines the analysis of these fluctuations in light of nominal wage stickiness and the distinction between real and nominal interest rates by the Marshalls and Fisher, and by Ralph Hawtrey in Good and Bad Trade (1913). Wicksell's distinctive treatment of the cycle, in terms of cumulative processes and the natural and market rates of interest, is covered separately in Laidler's fifth chapter.

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Laidler's discussion of Fisher in his fourth chapter suffers from his cut-off date of 1914, when the outbreak of the First World War and consequent abandonment of the gold standard for inconvertible paper currencies changed the institutional environment of monetary theory. The work of Marshall and Wicksell was largely complete by 1914, with Alfred Marshall's Money, Credit and Commerce (1923) based on much earlier manuscripts and official papers. Hawtrey's monetary theory of the trade cycle can be reasonably judged from his first book. Neglect of what Fisher wrote after The Purchasing Power of Money (2nd ed., 1913) leads Laidler to underrate the importance of the non neutrality of money during transition periods in chapter IV of Fisher (1913). Laidler (pp. 93, 116n) notes the monetary theory of the cycle in that chapter and, in his only reference to Fisher's later writings, that 'Of course the theory in question is also expounded in Fisher's famous paper of 1923 -"The business cycle - largely a Dance of the Dollar". However, Laidler (pp. 95. 101) admits grudgingly only that 'Fisher did recognise that quantities of goods produced might expand a little during the boom, and contract during the downswing' (my emphasis) and claims that 'Unlike Fisher, Hawtrey treated output and employment fluctuations as essential features of the cycle.'

Fisher (1913, chapter IV) presented a monetary theory of fluctuations in output and employment. This belief that fluctuations in the purchasing power of money drove fluctuations in output motivated his proposal for price level stabilization, sketched in the final chapter of the 1911 first edition and expounded in an appendix added to the 1913 edition. This monetary explanation of output changes underlay his later work on price index numbers and his long series of empirical papers (including one reprinted as '1 Discovered the Phillips Curve') correlating output and unemployment with distributed lags of price level changes. It was also behind his efforts to educate the public out of money illusion and to neutralize price changes through such devices as index-linked bonds. The importance of chapter IV of Fisher (1911, 1913) as a monetary theory of output fluctuations cannot be missed if it is read in the context of his post-1914 writings.

Laidler's sixth chapter is a fascinating account of the interaction of monetary theory and institutions. He argues that the gold standard triumphed over bimetallism not because of but despite neoclassical monetary theory, which undermined the notion of a natural value of commodity money. While Laidler's fifth chapter provided a deeper understanding of a familiar topic, Wicksell's relationship to the quantity theory of money, the sixth chapter examines important but less familiar material, Fisher, Marshall and Walras on the economics of bimetallism and Edgeworth on the mathematical theory of banking. This chapter yields one net addition to knowledge after another.

One may quibble with a few of Laidler's statements. He notes (p. 114) that 'there are traces of an embryonic multiplier process in Hawtrey's work in the 1920s' but Eric Davis (1980, 1983) has found explicit numerical derivation of finite-valued multipliers by Hawtrey, with leakages into imports in a 1928 Treasury memorandum, and with a propensity to save in 1930 correspondence with Keynes. Hawtrey published an algebraic treatment of the multiplier in an appendix in his Art of Central Banking (1932).

Laidler (p. 114) then adds that 'The observation in Marshall and Marshall (1879) that "the stoppage of work in one trade diminishes the demand for others" (page 155) is as close as anyone came to recognising the existence of such a process in the period under discussion here.' He forgets that Walter Bagehot wrote in Lombard Street (1873, p. 85) that 'under a system in which everyone is dependent on the labour of everyone else, the loss of one spreads and multiplies through all; and spreads and multiplies the faster, the higher the previous perfection of the system of divided labour and the more nice and effectual the mode of interchange. And the entire effect of a depression in any single large trade requires a considerable time before it can be produced; it has to be propagated and returned through a variety of industries, before it is complete (Bagehot's emphasis).

Laidler (p. 199n) reports that 'it should be noted that as early as 1886 [Herbert] Foxwell recommended public works as a device for mitigating unemployment.' Pericles, more than two millennia before Foxwell, proposed public works to employ idle labour. 'Now that the city is well equipped with all its needs for war, she must devote her resources to works which, once completed, will win her everlasting fame, and which will provide her with a ready source of prosperity during their construction. Enterprises and needs of every kind will be created, which will stimulate every craft and keep occupied all available hands, and so provide pay to almost the whole of the city, who will at once embellish and maintain herself from her own resources' (Plutarch, Pericles XII, in Austin and Vidal-Naquet 1977, p. 302).

In view of Laidler's acceptance (pp. 11, 12, 17) of the conventional view that Cantillon anticipated Hume's specie flow mechanism, it is interesting to note William Grampp's statement (1992, p. 65) that 'What I find puzzling [about the secondary literature] is that there is nothing in Cantillon that anticipates Hume's specie flow mechanism.'

Apart from the issues of Fisher on output fluctuations and of coverage of secondary literature, any reservations that I have are quibbles about peripheral matters. They do not detract from David Laidler's considerable achievement in deepening our understanding of the transformation of classical into neoclassical monetary theory, and in demonstrating the value of such historical knowledge and understanding for contemporary monetary economics.

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