

## **Ricardo, Fisher, Patinkin and Who?**

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Paper to be presented in June 2016 at a conference at SOAS to mark the 200<sup>th</sup> anniversary of Ricardo's *Proposals for an Economical and Secure Currency* (1816).

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## 1. Introduction

The ‘Who’ of the title is the celebrated Victorian biologist Alfred Russel Wallace, the co-discoverer with Darwin of the principle of natural selection. Wallace, by the 1890s a grand old man of science, had interested himself for some time in economic matters and was stimulated into advocacy of an inconvertible paper currency following the then recent debates on bimetallism. See, for example, Marshall’s evidence to the Gold and Silver Commission of 1887,1888 (Marshall 1926). Much had happened since Ricardo’s *Proposals*: the Bank Charter Act of 1844, the great gold discoveries, periodic crises, and so on. But the profession was still wedded to a monetary system anchored in the precious metals and, I would argue, it is difficult to detect any major intellectual advance in this area in the intervening years: indeed, Marshall’s own proposal, as he admitted (*ibid* p. 28), was essentially a re-working of Ricardo for a bi-metallic standard. Although Wallace’s reputation was firmly based on his work as a natural scientist, he was by no means reluctant to join in current controversies and was still writing scientific and other papers<sup>1</sup>: in 1898 for example, at the age of seventy five, he published some twenty-five short pieces (on topics ranging from the Burma Lily to spiritualism) and a substantial book, *The Wonderful Century* (Wallace 1898). On monetary policy he published just a few short letters in the then popular socialist weekly, *The Clarion* (e.g., Wallace 1898,1898a,1898b). These letters may be seen as an alternative set of *Proposals for an Economical and Secure Currency*, based not on gold but on paper. In brief, Wallace’s proposed that:

- an inconvertible paper currency be used
- a stable prices target be set
- an index based on weighted expenditures be calculated
- an independent commission be established for this purpose
- the quantity of money be adjusted to meet the monetary target

Wallace’s proposals were rescued from obscurity by Irving Fisher<sup>2</sup>. The dedication page of Fisher’s *Stabilizing the Dollar* (1920) was to “John Rooke, Simon Newcomb, Alfred Russel Wallace, and all others who have anticipated me in proposing plans for stabilizing monetary units”. Fisher provided more detail in *Stable Money* (1934):

In 1898 another well-known Englishman, Alfred Russel Wallace, the naturalist, advocated the use of an index number in order to arrive at a stable currency, which, as he explained, could well be in the form of an inconvertible paper currency. In the opinion of this man of science, the index, representative of the necessities of life, should include: ‘food, clothing, houses, fuel and literature.’ (p. 47).

Patinkin (1992), among others, has remarked that Fisher’s *Stabilization* proposal sits rather oddly with his own quantity theory of money. In respect of Wallace he went further.

So, as an outsider to economics, Wallace was free from the attachment to gold and thus advocated a stabilization policy that was more in the spirit of the quantity theory. He was also explicit about what Fisher (in his definite-reserve system) left unspecified; namely the role of the Treasury in injecting or withdrawing quantities of money from circulation. Here was the true anticipator of the Chicago School of the 1930s. But what remains a puzzle for me is why Fisher chose to dedicate the book to Wallace in

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<sup>1</sup> See, for example, Collard (2009) for a more general discussion of Wallace’s forays into economic reform and other topics.

<sup>2</sup> Fisher’s citing of Wallace was first brought to my attention by George Beccaloni of the Natural History Museum

preference to the well-known economists he cited in the same category with him – among them Carl Menger and Charles Gide. (p. 18).

One solution to Patinkin's puzzle may be that Wallace, in Fisher's eyes, had not merely contributed to index-numbers but had devised a fairly complete *system* of monetary policy. It was probably for this that Fisher accorded him preferential treatment. Another possibility is that Fisher recognized Wallace as a kindred spirit in that both were mavericks and campaigners though politically poles apart: Wallace for land nationalization and against compulsory vaccination, Fisher for vegetarianism and against alcohol and tobacco.

## 2. Wallace and Ricardo

I doubt whether Wallace had ever read Ricardo's *Proposals*. However, he was familiar with the controversy surrounding bi-metallism and his own scheme has to be seen in that context. Table 1 is a simplified account of comparable features of the schemes of Ricardo, Marshall and Wallace.

Ricardo 1816	Marshall 1887	Wallace 1898
Gold as basis	Gold or bi-metallic basis	Inconvertible paper basis
No specific price target	Largely stable prices target	Stable prices target
Price index impossible/undesirable	Tabular index for debts	Wallace's price index
Paper and gold currency with gold ingot convertibility	Paper currency with gold/silver ingot convertibility	Paper currency issue adjusted by independent body to achieve price target.

Table 1

As I have already noted, Marshall's proposal was essentially Ricardo's, modified for bi-metallism<sup>3</sup>. The gulf separating Wallace from both Ricardo and Marshall was that while they advocated one or more precious metal as the basis for the currency, with a form of convertibility, Wallace advocated a wholly paper currency not at all backed by gold or silver.

*Gold versus paper.* Wallace was strongly against gold as a basis for the currency but only partly because of fluctuations in its value, the data for which he initially took from Jevons's *Money and the Mechanism of Exchange* (Jevons 1875). For one thing, he believed that the fluctuations were greatly exaggerated. His objection, rather in the manner of Keynes's condemnation of gold as a 'barbarous relic', was more fundamental.

It must never be forgotten that the whole enormous amount of human labour expended in the search for and the production of gold; the ships which carry out the thousands of explorers, diggers, and speculators; the tools, implements and machinery they use; their houses, food and clothing, as well as the countless gallons of liquor of various quantities they consume, are all, as far as the community is concerned, absolutely wasted. Gold is not wealth; it is neither a necessity nor a luxury of life, in the true sense of the word. (Wallace 1898, p. 14)

A paper currency would be much more economical than one based on gold. But would it be secure? Yes, said Wallace, if his proposed system was adopted. Probably not, said Ricardo. Ricardo was appreciative of the possible advantages of a paper currency,

<sup>3</sup> Strictly speaking Marshall's scheme was for symmetallism rather than bimetallism which would be subject to Gresham's Law.

not least, the facility with which it may be altered in quantity as the wants of commerce and temporary circumstances may require (Ricardo 1817, p. 55) but,

without a *standard* (my italics) it would be exposed to all the fluctuations to which the ignorant or the interests of the issuers might subject it.

Like Wallace, Ricardo was not averse to putting the matter into the hands of independent commissioners. Thus, in his *Plan for a National Bank* (Ricardo 1824),

it is said that Government could not be safely trusted with the power of issuing paper money...but I propose to place this trust in the hands of Commissioners, not removable from their situation but by a vote of one or both Houses of Parliament. (Ricardo 1824, p. 282)

Unlike Wallace's, however, Ricardo's paper currency would ultimately be linked to gold. Thus in the *Principles* he writes:

"[In] a free country, with an enlightened legislature, the power of issuing paper money, *under the requisite checks of convertibility at the will of the holder* (my italics), might be safely lodged in the hands of commissioners appointed for that special purpose, and they might be made totally independent of the power of ministers" (Ricardo 1817 p.363).

*A price index.* Wallace dismissed shortages in the quantity of money as important causes of depressions, preferring explanations based on a deficiency of purchasing power<sup>4</sup> (*Bad Times*, 1885). He was much more concerned about inflation which would increase the prices of essential commodities and therefore reduce the 'well-being' of working families. His independent body would therefore be required to meet the fixed monetary target of stable prices (to be measured by the index described below). The setting of a specific target has a very modern ring, of course. Ricardo had no such target, requiring the Bank of England or a National Bank to adjust the note issue to meet the needs of trade and commerce generally and to avoid 'periodical distress for money' (e.g., Ricardo 1817, p. 75).

As Patinkin remarked, Wallace had not been alone in advocating a price index. Wallace himself recognised the contribution of Joseph Lowe (1822) who had suggested weighting each item by its proportion of total expenditure. Wallace simply made the suggestion more specific.

What is needed is to take a representative selection of all the *necessaries* of life. These may be roughly classed as food, clothing, houses, fuel and literature. For the first we might take meat, bread, potatoes, sugar, tea, butter and beer; for houses timber, bricks, iron, glass, lime, cement, slates and building land...and so on. But the most important consideration is, that each item be taken in the proportion in which it is consumed in the country. (Wallace 1898b, p. 549)

These proportions are put down at a mere guess, but when obtained as accurately as possible for the whole of the 50 or more commodities chose, we shall have, as a result, that these quantities of these commodities have, on the average of the last seven .. years cost a gross sum. (Wallace 1898a)

To do this, a Minister, or Commissioner of Currency, with a sufficient staff of clerks, will be appointed, whose duty it will be to have regular returns made of the market prices of the standard commodities week by week and to have the averages calculated. (*ibid*)

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<sup>4</sup> This is to be compared with Marshall's evidence to the Commission in which he accepted that there was "depression of prices, a depression of interest, and a depression of profits...I cannot see that there is any considerable depression in any other respect" (Marshall, *op. cit.*, p. 99).

Proportions of standard products consumed and their value on the  
average years – 1890-1896

Bread	10,000 lbs	value 50 pounds
Meat	4,000 lbs	200 pounds
Sugar	1,500 lbs	10 pounds
Tea	500 lbs	40 pounds
Timber	1,000 cub. ft.	100 pounds
Coal	200 tons	200 pounds
<b>Total</b>		<b>600 pounds</b>

Table 2

Jevons, Marshall and others had advocated a ‘tabular standard’ for longer term transactions. For Wallace this would be subsumed in his own index. It cannot be denied, I think that Wallace’s proposal has a decidedly modern ring about it. Ricardo, on the other hand, set himself firmly against such an index.

It has indeed been said that we might judge of [a currency’s] value by its relation, not to one, but to the mass of commodities.....To determine the value of a currency by the test proposed, it would be necessary to compare it successively with the thousands of commodities which are circulating in the community, allowing to each all the effects which may have been produced on its value by the above causes. To do this is evidently impossible. (Ricardo 1817, p 59-61)

And again, lest we be in any doubt,

commodities generally, then, can never become a standard to regulate the quantity and value of money (*ibid*).

Ricardo’s objection was not merely one of practicality. Indeed he alleged that nothing is so easy to ascertain as a variation of price, nothing so difficult as a variation of value (*ibid* p.60). Though why one might have wanted an index of ‘value’ in so mundane a matter as regulating the currency is not at all clear. His context suggests that Ricardo was here thinking in terms of valuing ‘enjoyments’ (Marshall’s consumers’ surplus?), difficult territory indeed.

*Mechanisms.* Wallace’s independent commissioner would act as follows.

If during any month or quarter [the index is] seen to fall continuously, that is, everything becomes cheaper, he will advise the Treasury to issue more notes which they will bring into circulation (by using them to pay salaries and current expenses) till the fall is checked and the true average reached. When, on the other hand, the standard goods show a rise in price, it indicates that there is slight surplus of the currency, which is to be checked by cancelling old notes as they come back to the Treasury (Wallace 1898a).

Ricardo, on the contrary, had claimed that the Bank could regulate the currency “without attending to the absolute quantity of paper in circulation”. It could, instead, operate lumpy or ingot convertibility:

The object which I have in view would be in great measure attained, if the Bank were obliged to deliver *uncoined* (my italics) bullion [instead of golden guineas] in exchange for their notes (Ricardo 1816, p. 67).

Marshall’s succinct description of Ricardo’s mechanism is a useful one.

If..the currency were in excess and showed signs of falling below its gold value, it would be taken to the Mint and exchanged for gold bars for exportation; if it were deficient, gold bars would be brought to the Mint and currency demanded. Within the country the paper would be a perfect medium of exchange, while for the payment of the balances of foreign trade stamped gold bars are better suited than coins. (Marshall, *op. cit.* p. 28).

None of this would, of course, be necessary under Wallace's proposed regime.

### 3. Interest and Debt

An important part of the Bank of England's activity, then as now, was the management of the National Debt. As I understand it Ricardo had little quarrel with the Bank's day to day management of the debt. But he thought that the allowances paid to the directors were exorbitant and that the job could be done as efficiently, and more cheaply, by the State.

Under Wallace's scheme there would, because of his somewhat idiosyncratic view of interest and debt, be very little debt management to do. Unlike many other critics of capitalism Wallace was strongly in favour of the price mechanism, except when it was abused. But, rather in the same way as the market socialists of the 1930s, this had to be in the context of a more equal distribution of capital. Objecting to the 'dead hand' of the past, he opposed the issue of undated government stock because it would produce an idle *rentier* class. Similarly he argued that compensation for land or railway nationalisation should be by terminable annuities. Management of the government debt would therefore be a simple matter that could be left to civil servants. More controversially he was opposed to an anonymous capital market.

All loans should be *personal*, and therefore *temporary*; and... as a corollary, the repayment of capital should be made by the borrower, either for a fixed period...or for the term of his life. (Wallace 1884, p. 150).

Wallace was opposed to limited liability and to the stock market since it encouraged gambling and speculation and distanced savers from investors. Earlier, in *Bad Times*, (Wallace 1885) he had suggested a stamp duty on financial transactions, similar to what we now know as a Tobin tax, as a serious check to speculation. In Wallace's own, 'small is beautiful', scenario there would presumably be no speculative bubbles, no stock market crashes and no financial engineering. And perhaps no economies of scale.

### 4. Wallace and Political Economy

I conclude by looking at some other relationships between Wallace and political economists that may be of interest to the present audience, beginning with Malthus. Both Darwin and Wallace were strongly influenced by Malthus's *Essay on Population* (1798). Wallace's account is quite dramatic. While in the Malay Archipelago he suffered various bouts of fever.

During one of these fits, while again considering the problem of the origin of species, something led me to think of Malthus's *Essay on Population*...and the "positive" checks – war, disease, famine, accidents etc. – which he adduced as keeping all savage populations nearly stationary.....While vaguely thinking how this would affect any species, there suddenly flashed upon me the idea of *survival of the fittest*.....(Wallace 1898, 138-9)<sup>5</sup>

The next relationship to consider is that with JS Mill. Mill had been impressed by some radical passages in *The Malay Archipelago* and invited Wallace to join the Land Reform Association. Wallace was impressed by Mill's proposed reforms but came to believe they were not sufficiently radical. After Mill's death he started the Land Nationalisation Society and wrote a handbook *Land*

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<sup>5</sup> His account is a little misleading as it suggests his discovery was some sort of fluke whereas he and his friend Bates had frequently discussed the origin of species and the so-called Sarawak paper of 1855 had clearly established that new species could only emerge if coincident in space and time with existing species.

*Nationalisation* (1882) which was highly successful and went through five editions. Wallace became President of the Society and made good use of the platform this gave him.

Finally I consider Marshall, though not with respect to monetary reform. Marshall was highly critical of Wallace, partly because Wallace was for a time an enthusiastic supporter of Henry George (see Stigler 1989). He also publicly criticised some of Wallace's proposed land reforms and was anxious not to allow him too much influence in the new "scientific" economics. Thus writing to Foxwell about a possible sponsor for the new *Economic Journal* he feared

...that he might want more room for people like Wallace – to say nothing of Hyndman – than either Keynes or I should think right. (Whitaker 1996, letter 180).

I leave the final word on political economy to Wallace

The science of Political Economy has now guided, and often governed, the civilised world for near a century, but it may be doubted if the world is much better for its guidance. (Wallace 1894, p. 177).

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<sup>6</sup> In the case of Wallace's letters and shorter pieces I have used the prefix S to indicate their numbering on Charles Smith's excellent website 'The Alfred Russel Wallace Page'.

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