

RESEARCH IN THE HISTORY OF ECONOMIC THOUGHT AND METHODOLOGY

Founding Editor: Warren J. Samuels

Series Editors: Jeff E. Biddle, Ross B. Emmett and
Marianne Johnson

Recent Volumes:

- Volume 26A: Research in the History of Economic Thought and
Methodology: A Research Annual Warren J. Samuels,
Jeff E. Biddle and Ross B. Emmett; 2008
- Volume 26B: Research in the History of Economic Thought and
Methodology: Further Documents from
F. Taylor Ostrander; 2008
- Volume 26C: Research in the History of Economic Thought and
Methodology: Further Documents from and on the
History of Economic Thought; Warren J. Samuels,
Marianne Johnson and Kirk Johnson; 2008
- Volume 27A: Research in the History of Economic Thought and
Methodology: A Research Annual: Warren J. Samuels,
Jeff E. Biddle and Ross B. Emmett; 2009
- Volume 27B: Henry George, the Transatlantic Irish, and Their Times;
Kenneth C. Wenzer; 2009
- Volume 27C: Documents from Glenn Johnson and F. Taylor Ostrander;
Warren J. Samuels and Marianne Johnson; 2009
- Volume 28A: Research in the History of Economic Thought and
Methodology: A Research Annual; Jeff E. Biddle and Ross
B. Emmett; 2010

RESEARCH IN THE HISTORY OF ECONOMIC THOUGHT
AND METHODOLOGY VOLUME 28-B

ENGLISH, IRISH AND SUBVERSIVES AMONG THE DISMAL SCIENTISTS

EDITED BY

NIGEL F. B. ALLINGTON
*Cardiff Business School, Cardiff University,
Cardiff, CF10 3EU, UK*

NOEL W. THOMPSON
*Pro-Vice-Chancellor, Swansea University,
Swansea, SA2 8PP, Wales, UK*



United Kingdom – North America – Japan
India – Malaysia – China

ROBERT TORRENS AS A 'NEGLECTED ECONOMIST'

Giancarlo de Vivo

E. R. A. Seligman's 1903 article on 'Some neglected British economists' has had a great influence on authors who have dealt with the development of British (and not only British) economic thought and doctrine. Following that article, a whole stream of contributions over decades have tried to identify important authors, neglected because they allegedly moved in a direction contrary to the prevailing orthodoxy. This literature has in particular had the aim of unearthing precursors of marginalism who would have been crushed by the 'Ricardian orthodoxy'. It must however be noticed that in this anti-Ricardianism the literature inspired by Seligman went well beyond Seligman's own position. Although traces (or more than traces) of a position critical of Ricardo can be found in Seligman, it was only in authors who came after him, deriving their inspiration from his 1903 article, that the anti-Ricardian point is fully spelled out (as an example see Gordon, 1967).

Seligman targeted the treatment Torrens had recently received from Palgrave's *Dictionary* as proof of neglect ('only five lines'). An idea of Seligman's success can be gathered from the fact that five years after the appearance of his article, in 1908, Palgrave, issuing an Appendix to his *Dictionary*, wrote in the Preface:¹

an effort has been made to chronicle the work of the less known Economists of this country who laboured during the days when the teaching of Ricardo and James and John Stuart Mill was supreme, and who have been, in some instances, but imperfectly recognised, owing to the fact that their opinions were not in harmony with the orthodox

English, Irish and Subversives Among the Dismal Scientists
Research in the History of Economic Thought and Methodology, Volume 28-B, 89-110
Copyright © 2010 by Emerald Group Publishing Limited
All rights of reproduction in any form reserved
ISSN: 0743-4154/doi:10.1108/S0743-4154(2010)000028B007

teaching of the day. In arranging these I have had the assistance of Professor E.R.A. Seligman's papers. 'On Some Neglected British Economists' in the *Economic Journal*, London, 1903. Such scattered notices are almost the only recognition that many of these writers have received. Those who are interested in Economics have much for which to thank Professor Seligman. There is much work of the same class to be done. (Palgrave, 1908, p. 694)²

Indeed for Torrens, as for most of the other economists on whose behalf Seligman had complained of 'neglect' by the dictionary, Palgrave felt bound to add a supplementary entry in the appendix, longer than the original one, basically made with extracts from Seligman's article. Another important (but much later) vehicle of Seligman's influence was Schumpeter, who accepted his judgement on the 'neglected economists' *in toto*, and completely deferred to what Seligman had written on those authors, whom he often only knew at second hand.

According to Seligman, Robert Torrens (together with John Craig) was the main 'neglected economist' among Ricardo's contemporaries. We may notice that although Torrens was certainly neglected and virtually ignored at the time Seligman came to write his article, this had not always been the case. Indeed, the question of Torrens's status as a 'neglected economist' is to be approached with some caution, because his position is not little different from that of many other economists discussed by Seligman, such as M. Longfield or W. F. Lloyd, whose work seems to have really been largely ignored in their lifetime³ and for quite some time afterwards, being basically rescued from oblivion by Seligman.

Although Torrens never achieved a position as eminent as that of other economists who were more or less his contemporaries, like Malthus and Ricardo,⁴ it would be wrong to say that in his lifetime he was 'neglected' (see Fetter, 1965a, pp. 137-138). Indeed, he was made a Fellow of the Royal Society in December 1818 (at age 38); three years later, in 1821, he took the chair at no less an occasion than the founding meeting (attended by Malthus, Ricardo and James Mill among others) of the Political Economy Club, the first economic society ever established, of which he was a very active and influential member for 30 years (he resigned in 1851 on grounds of ill health).⁵ Nor could it be argued that his economic thought was at the time neglected, both from a theoretical and - even more - from a policy point of view. He was one of the leading members of the 'Currency School' of monetary thought, which triumphed with the 1844 Act (also known as 'Peel's Act')⁶ redesigning the British monetary and credit system, basically ruling it until the first World War. Indeed, it was in Torrens's (1837) *Letter to Lord Melbourne on the Causes of the Recent Derangement in the Money*

Market, and on Bank Reform, that the proposal for the division of the Bank of England into an Issue and a Banking Department, the cornerstone of Peel's 1844 reform, was first put forward in print.⁷ It could be affirmed that Torrens was one of the fathers of what F. W. Fetter has called 'British Monetary Orthodoxy'.⁸ As for recognition of Torrens in public life, not only was he repeatedly returned as MP, but following his contributions to the colonisation debates of the late 1820s and 1830s, in which he basically followed in Edward Gibbon Wakefield's footsteps,⁹ he was appointed (1835) Chairman of the Colonization Commission for South Australia, the body to which the task had been entrusted of carrying into execution the Act passed in August 1834, to establish the new province of South Australia. This Commission was superseded in 1840 by the Colonial Land and Emigration Commission, of which Torrens was also the chairman, thus becoming - even though briefly - 'the chief executive officer of the British Empire' (Moore, 2004, p. 56). The fact that in 1841 he was sacked from that body by the then Colonial Secretary Lord John Russell, on charges of misconduct,¹⁰ and that the colony of South Australia had gone bankrupt shortly before, certainly did not do much good to Torrens's standing as an upholder of 'self-supporting colonization', and in general as a public man, but nonetheless a river and a lake in South Australia were and are still named after him. It can also be added that in 1851 he was given a Civil List pension of £200 *per annum* (about £15,000 at today's prices) 'in consideration of his valuable contributions to the Science of Political Economy' (Fetter, 1965b, p. 182n) - something hardly consistent with the status of a 'neglected economist'.

All this however is not meant to argue that Seligman's definition of Torrens in 1903 as a 'neglected economist' was unwarranted, but to stress that it is important to see this question in historical perspective: account must be taken of the changes that Torrens's standing as an economist underwent over time, which were significant. I think it can be said that Torrens's descent into oblivion only started in the 1850s (also due to his old age for which he more or less ceased participation in economic and political debates), and certainly it was more or less complete in the later decades of the nineteenth century,¹¹ so that, as Seligman lamented, in 1899 he was treated 'somewhat cavalierly' in Palgrave's *Dictionary*, which only devoted a very short and not well-informed entry to him, written by C. A. Harris, Chief Clerk of the Colonial Office (the fact that he was chosen to write the entry was an implicit statement that Torrens's main title to fame were his colonisation activities, not his contributions to economics). As Seligman recalls, Harris wrote (clearly without much knowledge of them)¹² that Torrens's economic works were 'as a rule, devoid of permanent merit'.

prominence in Seligman's article (where it is made as a collateral point on Torrens's theory of profits), Seligman came later to regard it as a 'great point', and put it on the same plane as the other four listed above (Seligman, 1927-1928, p. 127). About this last point we may notice that state intervention for the relief of workers' distress was not unknown in the first half of the nineteenth century - indeed, 1816-1817 saw what Smart has called 'the first experiment of the century in what are now called Relief Works' (Smart, 1910, p. 543). But most economists were against them, their position being thus put forth by Ricardo: 'the raising of funds for the purpose of employing the poor ... diverts those funds from other employments which would be equally if not more productive to the community' (Ricardo to Malthus, 3 January 1817).¹⁶ Torrens's position compares favourably with this *ante litteram* 'Treasury View', but while it is true that it was interesting and almost unique among economists, it was not backed by any original theoretical position, and appears to be based rather on common sense and a desire to redress an injustice to the workers: it is not in the name of the principles of political economy that Torrens advocated the measure, but in the name of 'Humanity and justice'. Moreover, Torrens appears clearly to think that the problem of unemployment was only partial and temporary,¹⁷ therefore his position was not so unorthodox as it could appear at first sight. We can therefore turn to the more specifically economic arguments for which Seligman put forward the four claims listed above for Torrens's 'neglected' originality.

TORRENS ON RENT

On rent, Seligman's claim is based on the fact that in the first edition of the *Essay on the External Corn Trade* (1815) Torrens conceives rent as a 'net surplus', which is undoubtedly true, but not in itself very significant: Adam Smith had already written of rent as surplus produce,¹⁸ and following Smith the same conception is to be found in a number of authors, for instance in Spence's 1807 tract *Britain Independent of Commerce*, which Torrens certainly knew, having written *The Economists Refuted* against it in 1808. Spence in fact speaks of rent as 'the surplus produce paid to [the class of land proprietors] under the denomination of rent' (Spence, 1807, p. 17).¹⁹

Seligman however adds that Torrens 'explains later ... that cultivation proceeds from the better lands to inferior lands, the difference in the produce of "soils of first rate" and of "second rate or third rate quality" "appearing in the form of rent"' (Seligman, 1903, p. 342). This is more

The period from 1850 to the triumph of marginalism, in which Torrens's demise took place, is one which has undergone little scrutiny in studies on the development of economic doctrine. It might be argued that this period, which was dominated by what Marx called 'vulgar economics', is well worth forgetting: as Foxwell (1899, p. lxxviii) wrote, in this period economists became 'men of one book' - John Stuart Mill's *Principles of Political Economy*, the 'bulky compendium' (Marx, 1969-1972, Vol. 3, p. 190) published in 1848. This is not the place to enter into a discussion of the economics of this period, or the relationship between J. S. Mill's *Principles* and Ricardo's thought,¹³ but it can be affirmed that the neglect that Torrens then started to suffer was rather due to his being a Classical economist, and to the fact that the problems to which he had devoted himself - especially as far as the core of economic theory is concerned, value and distribution - made his position difficult to understand at a time when the structure of Classical economic theory was being 'submerged and forgotten' (Straffa, 1960, p. v). Although known as a critic of Ricardo on value theory (but a critic however who later went back to the Ricardian fold)¹⁴ Torrens was deeply entrenched in Classical theory, and it would be difficult to maintain that the reason why he came to be neglected was that of not belonging to the 'Ricardian orthodoxy'. It is not by chance that probably the only author who, before the recent reawakening of interest in Torrens,¹⁵ discussed in depth his economic thought was Karl Marx, 'the last of the Classical economists', in his *Theories of Surplus Value*, written in 1862-1863.

The main claims put forward on behalf of Torrens by Seligman in his article (p. 341) are the following:

He discovered, independently of Malthus and Ricardo, the law of rent.

Secondly, he advanced a theory of wages which was adopted by Ricardo.

Thirdly, he discovered the law of comparative cost, the credit of which is usually ascribed to Ricardo.

Fourthly, he advanced a theory of profits which differed from that of Ricardo, and which was considerably nearer the truth.

Before discussing these four points, we may notice that there is a fifth one which Seligman mentions, without giving it great importance, that is Torrens's plea (put forward in 1834 in the tract *On Wages and Combination*, but to some extent traceable even to his first economic work, *The Economists Refuted*, of 1808) for 'a national insurance fund to be applied to the alleviation of [the] misery' caused to workers when they are (temporarily) thrown out of employment by the deployment of 'new and improved machinery' (Seligman 1903, p. 343). While this point is not given great

significant (and nearer to Malthus's and Ricardo's conceptions), but the problem is that the words Seligman seems to quote (putting them in inverted commas) are not to be found in the pages of the edition of *External Corn Trade* he refers to, nor indeed have I been able to trace them at all in the whole book.²⁰ They seem in fact to come from the 1826 edition of the book, where Torrens writes:

In the First Edition of the Essay on the Corn Trade, which was written in 1814, and published early the following year, before the Author was acquainted with the very able and original disquisitions of Mr. Malthus and Mr. Ricardo, it was stated, that the difference between the returns to capital upon the worst, and upon the best lands under tillage appears in the form of rent; and that when we increase the cost of obtaining subsistence, a greater portion of the produce of labour will be required for wages, and a less proportion will remain for profits. (Torrens, 1826, p. ix)

But Torrens's assertion is not substantiated by the text of the 1815 *External Corn Trade*. I think it can be said that in 1826 Torrens, being keen to distance himself from Ricardo, and to claim priority with respect to him on a number of points (also taking advantage of the fact that Ricardo was dead), asserted that in 1815 he had written something which he had not really written. Indeed, as Robbins rightly recalls,²¹ Torrens himself (rather inconsistently with these bold claims in the 1826 *External Corn Trade*) in the second edition (1820) of the book, had written about its first edition that

with respect to the influence of the Corn Trade upon the distribution of wealth, there were defects in his [1815] work which, in the existing state of economical science, it would have required much patient investigation to supply. (Torrens, 1820, p. xvii)

In fact the 1815 edition of the *External Corn Trade* is marred by the pervasive presence of the Smithian idea that wages profits and rent are 'constituent parts of the price of commodities', or 'original sources' of value, so that if rent rises this would be paid for by increased prices, not diminished profits. And conversely, 'the component parts of natural price are rent, profits, and wages, and a free external corn trade would have a powerful effect in lowering them all' (Torrens, 1815, p. 298).

The best approximation to Malthus's theory of differential rent one can find in the 1815 *External Corn Trade* is in a passage where Torrens writes:

Competition perpetually tends to equalize the rate of profit upon stock; and whatever enables inferior lands to be cultivated, necessarily increases the rent due from the superior ... the increased value added to land ... will go to augment the revenue of the proprietor. (Torrens, 1815, pp. 219-220)

This is certainly consistent with the Malthus/Ricardo theory of rent,²² but it must be just with reference to passages like these that Robbins (by no means a detractor from Torrens's merits) writes that on rent 'There is not the same edge to Torrens' first tentatives ... as there is to the statements of West or Malthus or Ricardo' (Robbins, 1958, p. 42). Indeed, they compare poorly with the sharp formulations that we find in those authors – especially West and Ricardo.

As for priorities, although it is true that as Seligman writes (following Torrens himself) the *Essay on the External Corn Trade* was mainly written in 1814 (it was published in February 1815), it is certainly wrong to say that 'in all probability' Torrens's *Essay* 'antedated them [the essays by West and Malthus]' in publication (Seligman, 1903, p. 342).²³ In particular, Malthus's two 1815 rent pamphlets (*Inquiry into Rent* and *Grounds of an Opinion*) were certainly published before Torrens's *Essay*, so much so that Torrens quotes *Grounds of an Opinion* (undoubtedly the later of the two pamphlets)²⁴ in the preface to the *Essay* (Torrens, 1815, p. x), and in the text (1815, p. 281).²⁵ Even if one argued that Torrens did not know them when (undoubtedly in 1814) he wrote the bulk of the *Essay*, we would be at most discussing a case of simply *subjective* originality for Torrens.²⁶

It must also be remembered that although in the Preface to the 1826 edition, as already mentioned, Torrens declares his agreement with the proposition that 'the difference between the returns of capital upon the worst, and upon the best lands under tillage appears in the form of rent', later in the text of this very book Torrens criticises 'Ricardo and his followers' for having maintained that 'rent is the difference of produce obtained with equal capitals, and with equal labour, on the same, or on different qualities of land' (1826, p. 138).²⁷ This criticism was partly based on rather silly numerical examples, which it is not necessary to discuss here. Torrens believed he had added to the theory of rent the point that [neither the gradations of soil, nor the successive applications of capital to land, with decreasing returns, are in any way essential, either to the appearance or to the rise of rents'. Rent could according to him be generated by the surplus profit that increasing demand of agricultural produce would generate, by causing a rise in the price of agricultural produce. Rent would absorb this surplus profit so as to bring the agricultural rate of profits to the same level as that of the manufacturing sector (1826, p. 137ff). But of course the idea that the price of agricultural produce would rise just because demand was rising, and without a rise in its cost of production, was in utter contradiction with the theory of value espoused by Torrens, which made price depend on cost of production,²⁸ not supply and demand.²⁹ If cost of production did not

rise,³⁰ the surplus profit due to the excess demand would disappear with the increased agricultural production which this very surplus profit would call forth.³¹ It must here be recorded that Torrens withdrew his criticism of Ricardo on the theory of rent in the 1844 introduction to *The Budget*, where he blames himself for having in the past criticised Ricardo on this subject, stating that he 'mistook an extension for a refutation of Mr. Ricardo's theory of rent' (Torrens, 1844, p. xvi). He then inserts a long quotation from the 1826 edition of the *External Corn Trade*, where he had put forward that 'refutation', and where the basic point was that rent could manifest itself irrespective of the existence of decreasing returns. We may simply notice that Torrens is not really disowning the (wrong) point he had made in 1826, but merely saying that his point was an 'extension', not a 'refutation', of his 'great master' – whose definition of rent however Torrens still declares to find 'defective' (Torrens, 1844, p. xxi).

TORRENS ON WAGES

On the theory of wages, Seligman (1903, p. 342) states that 'Torrens first put forward the theory of the natural rate of wages as influenced by the standard of life, and it is this theory that soon became the stock-in-trade of the classical school'. The truth of the first half of Seligman's sentence can hardly be doubted, but the second half is highly problematic.

It is certainly true that Ricardo mainly adopted ideas on wages which Torrens had formulated in the 1815 *External Corn Trade*. As Seligman recalls, Ricardo himself, in the chapter 'On Wages' of his *Principles*, quoting in full a paragraph from Torrens's book, added: 'The whole of this subject is most ably illustrated by Colonel Torrens' (Straffa & Dobb, 1951–73, Vol. 1, p. 97n).³² Indeed, before Seligman, Cannan (1893, p. 246) had already noticed that 'Ricardo ... in the opening paragraphs of his chapter "On Wages" follows Torrens very closely'.³³ Although Cannan then starts one of his hair-splitting disquisitions on some minor differences between Ricardo's and Torrens's treatment of wages, there can be no doubt that Torrens influenced Ricardo, and that even to a modern reader some of Torrens's points are remarkable, as the one where he notices the importance of social influences in the determination of the 'natural' (i.e. the subsistence) level of wages:

That the labourer must, usually, obtain for his work, a sufficient quantity of those things, which the climate may render necessary to preserve himself, and such a family as

may keep up the supply of labour to the demand, in healthful existence, is self-evident; and, when we consider that things not originally necessary to healthful existence, often become so from use, and that men will be deterred from marriage, unless they have a prospect of rearing their families in the mode of living to which they have been accustomed, it is obvious, that the labourer must obtain, for his work, not only what the climate may render necessary, but what the *habits of the country, operating as a second nature*, may require. (Torrens, 1815, p. 63; emphasis added)

The problem with Seligman's position is that this theory, although adopted by Ricardo and recognised by him as due to Torrens, rather than becoming 'the stock-in-trade of the classical school' as Seligman writes, was swiftly abandoned – *not least by Torrens himself*. Indeed, the case of the theory of wages is particularly illuminating on the point I have made above, that the neglect of Torrens came rather from his being a Classical – and to a good extent a *Ricardian* – economist than from his opposing an alleged Ricardian Orthodoxy. As I have argued above, the whole structure of the Ricardian theory was soon submerged and forgotten, and Torrens with it. Very soon (already in the mid-1820s)³⁴ the conception of a natural wage determined by the level of subsistence, which Torrens had 'most ably' illustrated, and Ricardo shared with him, was completely superseded by the theory of the Wage Fund, where the level of wages is determined by the ratio between the amount of capital which pays the wages and the number of workers employed – the subsistence wage now becoming only the minimum level below which wages cannot fall. Torrens himself by the late 1820s espoused this conception (see the appendix to Torrens, [1829] 1972), which he more fully expounded in his 1834 tract on *Wages and Combination*. He no longer distinguishes (as he had done in the 1815 *External Corn Trade*, and Ricardo did in *Principles* two years later) a *market* and a *natural* rate of wages, the former determined by 'the proportion ... between the demand and the supply', the latter '*by other laws*', being equal to the workers' subsistence (Torrens, 1815, p. 62; emphasis added). In *Wages and Combination* the level of the workers' subsistence is only '[t]he minimum below which wages cannot permanently fall' (Torrens, 1834, p. 11) – the maximum being fixed on the other hand by the amount that would absorb all net product (1834, p. 7ff). Within this interval the 'actual level of wages' is determined by 'the proportion between the number of labourers and the quantity of that component part of our farmer's capital, which he exchanges for labour' (1834, p. 15).³⁵ Irrespective of what one thinks of the relation between this conception and the theory of the natural rate of wages which Torrens had advocated in 1815, there can be no doubt that by the early 1830s the latter had been quietly discarded by Torrens himself.

TORRENS ON COMPARATIVE COSTS

Seligman's claim that Torrens arrived at formulating the principle of comparative costs before Ricardo is one which has been widely accepted in the literature. This merit would be sufficient for probably ensuring immortality to Torrens, the principle of comparative costs (or comparative advantage) being considered, as *The New Palgrave* put it in the entry devoted to it (Findlay, 1987, p. 514) 'the deepest and most beautiful result in all of economics'. Yet this very entry attributes the paternity of the principle to Ricardo ('first clearly stated and proved' by him: Findlay, 1987, p. 514) rather than to Torrens.³⁶ We must here distinguish two questions. One is the precedence in formulating the principle, the other the fullness with which the principle is illustrated, the uses to which it is put etc. From the latter point of view, I think one should agree with Jacob Hollander rather than with Seligman. In a famous discussion they had in the September 1911 *Economic Journal*, following the publication of Hollander's (1910) study of Ricardo, Hollander forcefully spelled out his denial that it was possible to ascribe to Torrens the paternity of the principle of comparative advantage in production – as distinguished from the much less important principle of the absolute advantage of the territorial division of labour, which can certainly be found in Torrens's early economic work (e.g. his 1808 *The Economists Refuted*). Hollander rightly argued that the principle of the absolute advantage accruing from the territorial division of labour is not only different but certainly much less sophisticated and less important than that of gains deriving from specialisation according to comparative advantage. We may quote Hollander's argument in full:

The theory of international trade set forth in Torrens's [1815] *Corn Trade* is, with a single exception, the principle of territorial division of labour as propounded in the *Economists Refuted*: Commerce is advantageous in that it enables a country to obtain a greater quantity of other goods in exchange than the same labour and capital could have produced at home ... In the latter part of the *Corn Trade*, detached from the earlier statements of the theory, with neither antecedent nor consequent, and figuring only as an explanation of the possible importation of corn by a country before lands of superior quality have been brought under the plough – occurs the single paragraph upon which Torrens's claim rests. (Seligman & Hollander, 1911, p. 460)

Hollander therefore added that saying – as Seligman had done – that Torrens had provided a treatment of comparative advantage 'as full as that by Ricardo' meant to wrongly identify the principle of the advantages of territorial division of labour with that of comparative costs, because the treatment of the latter in the 1815 *Essay on the External Corn Trade* was

much less than full – let alone 'as full as that by Ricardo'. Indeed, it was only a rather casual and very limited formulation, and the principle was far from being understood by Torrens in all its important implications. The point could not be better put than in the words of Jacob Viner, an author who is not only one of the highest authorities on the subject, but also far from unsympathetic to Torrens:

Torrens clearly preceded Ricardo in publishing a fairly satisfactory formulation of the doctrine [of comparative costs]. It is unquestionable, however, that Ricardo is entitled to the credit for first giving due emphasis to the doctrine, for first placing it in an appropriate setting, and for obtaining general acceptance of it by economists. Hollander, moreover, appears to be justified in his contention that the doctrine was never an integral part of Torrens's thinking. (Viner, 1937, pp. 442–443)

Indeed, as pointed out by Hollander and Viner,³⁷ it is only in a single passage of the 1815 *External Corn Trade* that Torrens spelled out the principle of comparative advantage. We may quote it in full:

If England should have acquired such a degree of skill in manufactures, that, with any given portion of her capital, she could prepare a quantity of cloth, for which the Polish cultivator would give a greater quantity of corn, than she could, with the same portion of capital, raise from her own soil, then, tracts of her territory, though they should be equal, may, even though they should be superior, to the lands in Poland, will be neglected; and a part of her supply of corn will be imported from that country. (Torrens, 1815, p. 264; emphasis added)

So we may say that Seligman's claim that Torrens has to be given precedence with respect to Ricardo for a formulation of the principle of comparative advantage was formally right – but virtually void of substance. The story however cannot really end here. Strangely enough, an acknowledgement of indebtedness made by Torrens in the Preface to the 1815 *External Corn Trade* has passed virtually unnoticed. Torrens wrote:

The author conceives that several of the disquisitions, particularly those relating to the indirect operation of internal taxation, upon the importation of foreign articles, were never before presented to the public. He believes, however, that one or two of the arguments contained in the Second Part, may have been suggested by a pamphlet of considerable merit, entitled 'Observations on the Importation of Foreign Corn', and an excellent article which appeared in the *Eclectic Review*. (Torrens, 1815, p. xiv)³⁸

As a matter of fact this pamphlet contains a formulation of the principle of comparative costs no less clear than Torrens's *External Corn Trade* of the following year, but it has to this day been completely ignored.³⁹ Here we have a really neglected economist, of whom even the name is unknown.

There is no doubt that (a) this is a fuller statement than the rather cursory one we find in Torrens's 1815 *External Corn Trade*, (b) it was made and published the year before the publication of the *External Corn Trade* and (c) Torrens himself – a rather unreliable source as far as acknowledgement of priorities are concerned, inclined to overstate his own originality and importance⁴¹ – acknowledged that the 1814 pamphlet had suggested 'one or two of the arguments' of the *External Corn Trade*. The fact that Torrens's acknowledgement refers to Part II of the *External Corn Trade*, whereas his own formulation of the comparative cost principle appears in Part III is rather irrelevant, and cannot cancel the facts which, to sum up, are the following:

- (1) Torrens did formulate, but rather casually and in only one passage of the 1815 *External Corn Trade*, the principle of comparative advantage, before Ricardo's (by far fuller and deeper) formulation in his 1817 *Principles*.
- (2) The year before the publication of *External Corn Trade* the principle had been formulated in the anonymous pamphlet entitled *Considerations on the Importation of Foreign Corn*, a formulation that was certainly known to Torrens when he wrote *External Corn Trade*.
- (3) Therefore, the earliest known formulation of the principle of comparative advantage (or comparative costs) is the one by the anonymous author of the *Considerations on the Importation of Foreign Corn* (even though it is by no means impossible that there were earlier – but still unearthed – formulations of the principle).

One is even tempted to speculate that, given that the principle of comparative advantage is only so cursorily formulated by Torrens in the 1815 *External Corn Trade*, and that the rest of the book does not rely on it at all, Torrens – when he had more or less fully conceived his book, coming across the principle of comparative advantage as formulated in that anonymous pamphlet, and having seen the important point (Torrens certainly had a sharp mind, and was analytically inclined) – did not resist introducing it in his own book, feeling however duty bound to acknowledge the influence of what he had read in that pamphlet. With the passing of time, especially given that Ricardo entered the scene shortly afterwards with his powerful formulation in the *Principles*, the earlier formulations of Torrens's *External Corn Trade* and of the 1814 anonymous pamphlet were forgotten. But the unknown author of the 1814 pamphlet has in any case priority over Torrens.

No author writing on Torrens seems to have taken the trouble of following his (admittedly rather vague) hint. As far as I know the only person who actually knew the pamphlet Torrens was referring to, and realised that it contained the principle of comparative costs, was Piero Sraffa.⁴⁰ The pamphlet was published anonymously and to the best of my knowledge no hypothesis has ever been formulated on the identity of its author. Indeed, I have never seen it mentioned in the secondary literature at all. An extended quotation from this anonymous author may be in order:

The blind conception, that if in a trade between two countries, it was beneficial to one, it must therefore be in as much disadvantageous to the other, no longer misleads; at least in Britain. We have become sensible that all commerce, although perhaps in some instances more beneficial to one country than to the other, is, however, necessarily beneficial to both. Climate, soil, a more perfect skill, or other accidental circumstances, may give to one country advantages which another cannot, or does not possess. Their exchanges must consequently be mutually beneficial. If two countries can exchange one with the other any articles, whether of manufacture, or raw material, or sustenance ... for other articles, whether of manufacture, raw material or sustenance, which have relatively been produced with less labor and capital, the mutual advantage must be evident. If England exchanges with Germany a piece of cotton cloth, which has been made with the labor of ten persons, for ten days, (allowance being made for the value of the cotton wool imported), for a quantity of iron or wheat, which could not have been produced in England, but with the labor of double the number of persons for the same time, it must be evident, that England is more advantaged than she could have been in the application of her own double labour to its production: and consequently, that English capital must be augmented by the exchange, beyond what it would have been by the direct application of its labour and means to the production of the iron or wheat. Also, if on the other hand, Germany could produce with ten days' labor of the ten persons, the iron or wheat she exchanges for the piece of cotton cloth, which, although made in England with the ten days' labor of the ten persons, the iron or wheat she exchanges for the piece of cotton cloth, which, although made in England with the ten days' labor of the ten persons, could not have been made in Germany but with double the labor and capital, or at double the price of them, Germany too is in this manner advantaged. Also, if one of the two countries, equally capable of producing the same things by means of the same labor and capital, should however be able to direct that labor and capital to more advantageous pursuits, the advantage to that country in so doing must be not less apparent, although it should thereby be obliged to receive from the other country the things which it could otherwise have produced within itself. Supposing England and Germany both capable of producing the iron and wheat at the same expense of labor and capital, yet if England at the same time can by superior ingenuity, convert this labor and capital to the manufacture of cotton cloth, producing a quantity of it greatly beyond what Germany might be able to produce by the similar application of its labor and capital, then must both countries still be benefited by the exchange ... Germany obtains more cotton cloth than it could have fabricated for itself, by means of the same labor and capital employed in the fabrication of the cotton cloth. (Anon., 1814, pp. 7–9)

TORRENS ON PROFITS

As has been mentioned above, Seligman maintains that Torrens 'advanced a theory of profits which differed from that of Ricardo, and which is considerably nearer the truth' (Seligman, 1903, p. 341). As a matter of fact, when Seligman (very briefly) illustrates the point he appears to be saying something different. He writes that the really important contribution made by Torrens is 'a criticism rather than ... a piece of constructive work' (1903, p. 346). This would be Torrens's criticism of Ricardo's famous point that profits vary inversely with wages, or that 'profits depend on wages'. According to Torrens (as reported by Seligman) 'profit ... depends, not only on the rate of wages, but to a much more important extent upon the quality of the soil under cultivation, and above all upon the degree of skill with which labour is applied' (Seligman, 1903, pp. 346-347).

Seligman's account of Torrens's point is not wholly adequate. Torrens's position is in fact the following. He argues that 'the doctrine that profits depend on wages' is 'equally untenable, whether the terms, alteration of wages, alteration of profits, are employed with reference to proportions, or whether they are used in relation to quantities' (Torrens, 1826, pp. xv-xvi). Torrens illustrates the point with one of his numerical examples: he first assumes that to produce 60 units of corn it is necessary to employ 20 units of corn as wages, and 20 units as seed, so that the rate of profits in the production of corn would be 50%. Supposing then that the conditions of production improve, he assumes that the same 60 units of corn are produced employing only 10 units as seed, with the same number of workers, whose wages however are raised so as to consist of 25 units of corn as a whole. The rate of profits would have risen to 71%, but wages would also have risen, both as a quantity of commodities and as a proportion of the product. This partially disproves a point of Ricardo's, who had himself shown in the *Principles* that *commodity* wages may well rise without the rate of profits declining, if the conditions of production improve (see Ricardo, 1821, p. 48ff), but had not apparently seen that wages as measured as a *proportion of the product* - the way they had to be measured according to him (see Sraffa & Dobb, 1951-73, Vol. 1, p. lii and de Vivo, 1987a, p. 190) - need not decrease to allow a rise in the rate of profits. In Marx's terms, a reduction in the 'organic composition of capital' (the ratio of non-wage to wage capital) may accommodate a higher rate of profits with undiminished 'proportional wages'. Ricardo's oversight derives from his basic neglect of non-wage capital in the determination of the rate of profits. So Seligman is right, but we must notice that in making his point Torrens was not original; the same

point had already been made in McCulloch's *Principles*, published the year before, and Torrens was undoubtedly aware of it (see Torrens, 1826, p. xiii). Besides, Torrens's point, though valid, was not of such importance as to invalidate Ricardo's theory of profits, but only a specific proposition. In fact Torrens himself in the introduction to *The Budget* (1844) presented his criticism from another angle, more favourable to Ricardo: he stated that Ricardo's point was valid, provided one kept to Ricardo's own hypotheses: that 'the whole of the advances of the capitalist consist of wages', and that wages be 'estimated by the quantity of labour required to produce them'; that is by the proportion of the product paid to the workers as wages (Torrens, 1844, pp. xxv and xxvii, respectively).

As far as Torrens's own theory of profits is concerned, we may notice that the only consistent theory of profits Torrens was ever able to expound was taken from Ricardo. Torrens in fact never went beyond Ricardo's 'corn-ratio' theory of profits (in the example just given it is clear that the rate of profits is determined assuming that both product and capital only consist of corn), or its generalisation; that is a theory of profits based on the assumption of physical homogeneity between the *aggregate* of commodities composing the product and the *aggregate* of commodities composing the capital (see Sraffa & Dobb, 1951-73, Vol. 1, pp. xxxi-xxxiii and de Vivo, 1996).⁴² As Torrens himself acknowledged in the Preface to the second edition of the *External Corn Trade*, he only got to have an acceptable theory of distribution - and in particular a theory of profits - after reading Ricardo's *Essay on Profits* (Torrens, 1820, pp. xvi-xvii),⁴³ when - as Ricardo put it in a letter to Malthus - Torrens became 'quite a convert to all what you have called my peculiar opinions on profits, rent, &c. &c.' (Ricardo to Malthus, 28 May 1816, in Sraffa & Dobb, 1951-73, Vol. 7, p. 36). And we may add that the idea that profits are a surplus is reached by Torrens only after reading Ricardo's *Essay*. Torrens's 1815 *External Corn Trade* followed Smith very closely, and the idea that profits are a surplus does not really appear in it; indeed, the work is marred by the Smithian idea that wages profits and rent are the 'original sources of value', that is the 'adding-up theory of price' (Sraffa & Dobb, 1951-73, Vol. 1, p. xxxv), which makes Torrens (as it had Smith) loose sight of the connection between the level of wages and the level of profits. As a matter of fact, in the 1815 *External Corn Trade* the rate of profits is determined *à la* Smith 'by the proportion ... between the supply of capital and the demand for it' (Torrens, 1815, pp. 58-59). No relationship being seen between the level of wages and that of profits, the nature of profits as a surplus is lost, as indeed in Adam Smith. But, with Ricardo's 'agricultural' theory of profits, their surplus

nature is impossible to be lost sight of, and it is grace to it that Torrens arrives at stating with great clarity that 'Profit is that net surplus which remains with the capitalist after the complete re-placement of all his advances' (Torrens, 1820, p. 384).⁴⁴ No comparable statement can be found in the 1815 edition.

NOTES

1. This preface was dropped when the content of the appendix was incorporated in the main body of the dictionary, and is little known.
2. We may notice that these words of Palgrave's spell out the anti-Ricardian position which in Seligman's article is very much kept in the background.
3. It is however to be noticed that Lloyd was the Drummond Professor at Oxford. Longfield was the first incumbent of the economics chair founded by Archbishop Whately at Trinity College Dublin. Longfield's *Lectures* were praised by Torrens in his Introduction to *The Budget* (Torrens, 1844, pp. li-iii).
4. Torrens was born in 1780, and died in 1864; he was 8 years younger than Ricardo (who died very young, in 1823), and 18 years younger than Malthus (who died in 1834).
5. Torrens tabled one of the first three questions to be discussed at a meeting of the Club. He tabled at least another 18 questions in his years as member (see Higgs, 1921, p. 5ff). In 1851, Torrens boasted to have been the person who had originally suggested the creation of the Club (Torrens to Lord Overstone, 6 February 1851, in O'Brien, 1971, p. 506), but this (very late) claim must be taken with some reserve. It is generally thought that it was mainly Thomas Tooke who inspired the foundation of the Club. Lord Overstone described Torrens as one of the Club's 'great guns' (Higgs, 1921, p. 306). Regarding his departure from the Club, see the letter to Lord Overstone quoted above, and Moore (2004, p. 55). Moore's essay is an important source of biographical information on Torrens.
6. Sir Robert Peel (the younger) was the Prime Minister. Many years before, in 1819, he had caused another famous act to be passed, which re-established the Bank of England's specie payments after the suspension of the Napoleonic period. The Act of 1819 was also often referred to as 'Peel's Act'.
7. Torrens attributed the intellectual paternity of the proposal to Lord Overstone, whom he loved to flatter (Overstone was one of the richest men in England, and Torrens often made recourse to his help when in trouble). The intellectual ancestor of the proposal was really Ricardo's *Economical and Secure Currency* (1816), and his posthumously published *Plan for the Establishment of a National Bank* (1824).
8. Indeed, Torrens receives not little attention in Fetter's work. Torrens's positions on money – as on many other topics – underwent wide changes: from the extreme anti-Bullionism of his 1812 *Essay on Money and Paper Currency* to full orthodoxy. The *Essay on Money* Torrens himself many years later described as his 'original sin' (see the letter to Lord Overstone of 24 January 1848, in O'Brien, 1971, p. 414).
9. On Wakefield and his 'modern theory of colonization', see Marx ([1887] 1977, chap. 33).

10. The charge was that of having (indirectly) bought land in the colony, contrary to an 1835 ruling that Commissioners must not engage in commercial dealings with their Commission.

11. It must however be mentioned that the most important study of classical theory in the second half of the nineteenth century, Cannan's *History of the Theories of Production and Distribution in English Political Economy from 1776 to 1848* (1893), devoted not little attention to Torrens.

12. Harris claimed that '[Torrens's] works took usually the form of letters to the ministry of the day' (Palgrave 1899, p. 550), thus showing he was mainly taking into account Torrens's pamphlets such as those collected in *The Budget*, and overlooking his more important works, published mostly in the 1810s and 1820s, which often took the form of (rather bulky) treatises.

13. Torrens is mentioned two or three times in Mill's *Principles*, but his ideas had been given much more prominence in Mill's *Unsettled Questions*, where from the very preface Mill declares himself to be a follower of Torrens's ideas as put forward in *The Budget* (see J. S. Mill, [1844] 1967, p. 231).

14. Torrens formulated his critique of Ricardo's labour theory of value in the late 1810s, but by the beginning of the 1830s in his *Address to the Farmers* (1831), and in *Letters on Commercial Policy* (1833) he went back to the labour theory of value (see the present writer's editorial introductions to the reprints of these works in de Vivo, 2000, Vol. 8).

15. In the twentieth century, decades after Seligman's article, Torrens has attracted the attention of important authors such as Robbins (1958), Viner, who devotes much attention to him in *Studies in the Theory of International Trade* (1937), and Sraffa (see the 'Introduction' in Sraffa and Dobb, 1951-73, Vol. 1). In *Production of Commodities*, Sraffa (1960) resuscitated Torrens's treatment of fixed capital as a joint product, which after Marx had fallen into total oblivion.

16. In his reply, Malthus agreed that 'the funds raised for the support of the poor ... essentially interfere with other employments' (see Sraffa and Dobb, 1951-73, Vol. 1, p. xi). In his *Principles*, however, he wrote that 'the employment of the poor in roads and public works ... are the means most within our power and most directly calculated to remedy that disturbance in the balance of production and consumption, which has been occasioned by the sudden conversion of soldiers, sailors, and various other classes which the war employed, into productive labourers' (Malthus, 1989, Vol. 1, p. 512).

17. Torrens in fact writes: 'whenever a new application of mechanical power throws a particular class of operatives out of employment, a national fund should be provided, to aid them in betaking themselves to other occupations' (Torrens, 1834, p. 44; emphasis added).

18. For example, Smith ([1789] 1922, Vol. 1, p. 147) writes: 'land, in almost any situation, produces a greater quantity of food than what is sufficient to maintain all the labour necessary for bringing it to market ... The surplus ... is always more than sufficient to replace the stock which employed that labour, together with its profits ... [and it] remains for a rent to the landlord'.

19. Also, D. Buchanan in his comments on the *Wealth of Nations* had written of rent as a 'neat surplus' (Buchanan, 1814, p. 134).

20. Seligman refers the reader to pages 212, 256 and 325 of Torrens (1815).

21. We may mention however that strangely enough Robbins, in his book on Torrens, although quoting Seligman more than once, never really discusses Seligman's claims about Torrens.
22. I believe that Sraffa's attribution to Torrens's 1815 *External Corn Trade* of 'the principle of rent based on diminishing returns from the extension of cultivation to inferior qualities of land' (Sraffa and Dobb, 1951-73, Vol. 4, p. 6) was rather overgenerous. It is also surprising that they should call *External Corn Trade* a pamphlet when it was a 350-page book.
23. The point was reiterated by Seligman (Seligman & Hollander, 1911, p. 455) in his discussion with Jacob Hollander, who (1911, p. 467) retorted that Torrens quotes *Grounds of an Opinion* in the *External Corn Trade*, and that this is the later of the two pamphlets by Malthus.
24. It was in fact conceived as an appendix to *An Inquiry* (Malthus, 1815a), as stated in its title: *The Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn; Intended as an Appendix to 'Observations on the Corn Laws'* (Malthus, 1815b).
25. This was noticed by Sraffa and Dobb (1951-73, Vol. 4, p. 6), and had been noticed earlier by J. H. Hollander (Seligman & Hollander, 1911).
26. West's *Essay*, according to the chronology of publication established by Sraffa and Dobb (1951-73, Vol. 4, p. 5), was published immediately after Malthus's pamphlets, and about ten days before the *External Corn Trade* and Ricardo's *Essay on Profits*, for both of which Sraffa and Dobb give the date of publication as 24 February 1815.
27. The same principle of Ricardo which he was criticising is shortly afterwards summarised by Torrens as follows: 'rent is the difference between the quantity of produce obtained by a given capital from lands of superior quality, and the quantity obtained by the same given capital from the worst quality of land resorted to' (p. 143).
28. In *External Corn Trade* Torrens often used the expression 'price of production' (made later famous by Marx) instead of 'natural price' (on this, see de Vivo 1987b).
29. It could be thought that the mechanism described in the text was simply the short run rise in market prices of agricultural produce which in the end would cause land of inferior quality to be brought into cultivation (or capital yielding a lower return be applied to land of first quality). But if this was so, Torrens's claim to have added something new to the theory of rent would be even less justified.
30. This must be what Torrens is assuming, because it is only if cost of production does not rise *pari passu* with the increase in price that a surplus profit arises. Also, a rise in the cost of production would have implied diminishing returns, whereas Torrens wanted to show, against Ricardo, that rent could arise even when there were no diminishing returns.
31. It should be mentioned that in this same year T. Perronet Thomps on published his *True Theory of Rent*, where he criticised Ricardo's theory of rent on much the same lines as Torrens. Torrens felt that Thompson had borrowed from him without acknowledgement (on this, see also the present writer's editorial introduction to the reprint of Torrens's *Letters on Commercial Policy*, in de Vivo, 2000, Vol. 8).
32. It is rather strange however that Ricardo acknowledged Torrens's contribution only in the second edition, and rather grudgingly, after complaints by Torrens for not having been quoted. Ricardo seems to have had reservations about Torrens as a person, and this may explain Ricardo's aversion to quoting him.
33. Following Caunan, Sraffa and Dobb annotated these opening paragraphs in their edition of Ricardo to the effect that they 'appear to be derived from Torrens's *Essay on the External Corn Trade*, 1815' (Sraffa & Dobb, 1951-73, Vol. 1, p. 93n).
34. A pioneer in this was McCulloch, with his 1826 *Essay on Wages*, of which Section I is entitled: 'Rate of wages in any given country at any particular period, dependent on the magnitude of the fund or capital appropriated to the payment of wages, compared with the number of labourers' (McCulloch, 1826, p. 112).
35. We may notice that as already mentioned Torrens is basing himself on a 'corn-ratio' theory of wages.
36. The entry on 'International Trade', on the other hand, makes a cursory reference to the 1815 *External Corn Trade*, apparently attributing priority to Torrens with respect to Ricardo (Chipman, 1987, p. 937).
37. According to Viner the same point had been made not only by Hollander, but, before him, by Leser (see Viner, 1937, pp. 441-442).
38. Torrens has the title of the pamphlet wrong, but there is no doubt as to what pamphlet he is referring to. The article mentioned must be one on the Corn Laws, published in July 1814 in the *Eclectic Review*. The author of the article, as Torrens almost certainly knew, was James Mill.
39. It is not listed for instance in the extensive bibliography of Viner's 1937 book, one of the most learned works on the subject. The pamphlet being 'printed for the author' almost certainly did not have a wide circulation, but it is not excessively rare, especially in Britain. Major British universities (Cambridge, Oxford, LSE) have a copy, as do the British Library and the Goldsmiths' Library. Seligman had a copy in his collection (now at Columbia University) and there is a copy in the Kress Library at Harvard. There is no copy in the Library of Congress. No copies are recorded by Black (1969) as present in Irish libraries.
40. Sraffa actually owned two copies of the pamphlet, one of which he read and annotated to the effect that it contained the principle of comparative cost (see the entry relative to this pamphlet in the catalogue of his library forthcoming under the present writer's editorship).
41. As Sraffa (1930, p. 543) put it, Torrens is 'always an unreliable guide in questions of priority'. A detailed reconstruction of all the claims and counterclaims on different points of doctrine which Torrens put forward for himself would require a paper by itself.
42. This generalization seems to be entirely due to Torrens. Seligman was completely unaware both of Ricardo's 'corn-ratio' theory of profits and of its presence (and generalization) in Torrens.
43. Acknowledging the defects of the theory of distribution he had expounded in the first edition of the *External Corn Trade*, Torrens attributes it to the fact that at the time of writing it he had not read Ricardo's *Essay on Profits* (1815) and also Malthus's *Inquiry into Rent* (1815a). However, he writes that 'the whole' of the work

had been written and printed before the appearance of Ricardo's *Essay*, and 'the greater part' before Malthus's *Inquiry*.

44. Also, in *Production of Wealth* Torrens writes '[t]he profit of stock ... is essentially a surplus – a new creation – over and above all that is necessary to replace the cost of production, or, in other words, the capital advanced' (Torrens, 1821, p. 54). From this however Torrens also derives the idea that the natural price (which he equates to cost of production excluding profits) is different from the market price (which includes profits as well), and that the latter does *not* gravitate towards the former (1821, p. 55). This point was criticised by Malthus in the manuscript of the revisions to his *Principles*, which have only recently been published in its *variorum* edition (Malthus, 1989, Vol. 2, p. 53). We may notice that in *External Corn Trade* Torrens had adhered to the view that the market price tends to equality with the natural price (see Torrens, 1815, pp. 60–61).

REFERENCES

- Anon. (1814). *Considerations on the importation of foreign corn; arising out of the Proceedings, at a Meeting of the Heritors of Fifeshire, proposing to petition the legislature for further restriction, as published in The Courier Newspaper of 10th December 1813*, London (printed for the author).
- Black, R. D. C. (Ed.) (1969). *A catalogue of pamphlets on economic subjects published between 1750 and 1900 and now housed in Irish libraries*. Belfast: The Queen's University Press.
- Buchanan, D. (1814). *Observations on the subjects treated of in Dr. Smith's inquiry into the nature and causes of the wealth of nations*. Edinburgh: Oliphant, Waugh & Innes.
- Cannan, E. (1893). *A history of the theories of production and distribution in English political economy from 1776 to 1848*. London: Percival & Co.
- Chipman, J. S. (1987). International trade. In: J. Eatwell, M. Milgate & P. Newman (Eds), *The new Palgrave dictionary of economics* (Vol. 2, pp. 922–955). London: Macmillan.
- De Vivo, G. (1987a). David Ricardo. In: J. Eatwell, M. Milgate & P. Newman (Eds), *The new Palgrave dictionary of economics* (Vol. 4, pp. 183–198). London: Macmillan.
- De Vivo, G. (1987b). Prices of production. In: J. Eatwell, M. Milgate & P. Newman (Eds), *The new Palgrave dictionary of economics* (Vol. 3, pp. 960–961). London: Macmillan.
- De Vivo, G. (1996). Ricardo, Torrens, and Sraffa: A summing-up. *Cambridge Journal of Economics*, 20(3), 387–391.
- De Vivo, G. (Ed.) (2000). *The collected works of Robert Torrens* (Vol. 8). Bristol: Thoemmes.
- Fetter, F. W. (1965a). The relation of the history of economic thought to economic history. *American Economic Review*, 55(1/2), 136–142.
- Fetter, F. W. (1965b). *Development of British monetary orthodoxy, 1797–1875*. Cambridge, MA: Harvard University Press.
- Findlay, R. (1987). Comparative advantage. In: J. Eatwell, M. Milgate & P. Newman (Eds), *The new Palgrave dictionary of economics* (Vol. 1, pp. 514–517). London: Macmillan.
- Foxwell, H. S. (1899). Introduction. In: A. Menger (Ed.), *The right to the whole produce of labour: The origin and development of the theory of labour's claim to the whole product of industry*. London: Macmillan.
- Gordon, B. J. (1967). *Non-Ricardian political economy: Five neglected contributions*. Boston, MA: Baker Library.
- Higgs, H. (Ed.) (1921). *Political economy club: Founded in London, 1821; minutes of proceedings, 1899–1920; roll of members and questions discussed, 1821–1920; with documents bearing on the history of the club* (Vol. 6). London: Macmillan.
- Hollander, J. H. (1910). *David Ricardo: A centenary estimate*. Baltimore, MD: Johns Hopkins Press.
- Malthus, T. R. (1815a). *An inquiry into the nature and progress of rent, and the principles by which it is regulated*. London: John Murray.
- Malthus, T. R. (1815b). *The grounds of an opinion on the policy of restricting the importation of foreign corn*. London: John Murray.
- Malthus, T. R. (1989). In: J. Pullen (Ed.), *Principles of political economy: Variorum edition* (Vol. 2). Cambridge: Cambridge University Press.
- Marx, K. (1969–72). *Theories of surplus value* (Vol. 3). London: Lawrence & Wishart.
- Marx, K. (1887/1977). *Capital: A critique of political economy* (Vol. 1). Moscow: Progress Publishers.
- McCulloch, J. R. (1826). *An essay on the circumstances which determine the rate of wages, and the condition of the labouring classes*. Edinburgh: Black and Tat.
- Mill, J. S. (1844/1967). *Essays on some unsettled questions of Political Economy*. Vol. 4, *Collected Works of John Stuart Mill* (Vol. 4). Toronto: University of Toronto Press.
- Moore, P. L. (2004). Robert Torrens (1780?–1864). In: H. C. G. Matthew & B. Harrison (Eds), *Oxford dictionary of national biography* (Vol. 55, pp. 55–58). Oxford: Oxford University Press.
- O'Brien, D. P. (Ed.) (1971). *The correspondence of Lord Overstone* (Vol. 3). Cambridge: Cambridge University Press.
- Palgrave, R. H. I. (Ed.) (1899). *Dictionary of political economy* (Vol. 3). London: Macmillan.
- Palgrave, R. H. I. (Ed.) (1908). *Dictionary of political economy. Appendix*. London: Macmillan.
- Ricardo, D. (1815). *An essay on the influence of a low price of corn on the profits of stock; showing the inexpediency of restrictions on importation*. London: John Murray.
- Ricardo, D. (1816). *Proposals for an economical and secure currency: With observations on the profits of the Bank of England, as they regard the public and the proprietors of Bank stock*. London: John Murray.
- Ricardo, D. (1821). *On the principles of political economy, and taxation* (3rd ed.). London: John Murray.
- Ricardo, D. (1824). *Plan for the establishment of a national bank*. London: John Murray.
- Robbins, L. C. (1958). *Robert Torrens and the evolution of classical economics*. London: Macmillan.
- Seligman, E. R. A. (1903). On some neglected British economists. *Economic Journal*, 13(51 and 52), 335–363 and 511–535.
- Seligman, E. R. A. (1927–1928). *Lectures on the history of economics: Stenographic notes taken by P. S. Allen*. Mimeo, Columbia University, New York.
- Seligman, E. R. A., & Hollander, J. H. (1911). Ricardo and Torrens. *Economic Journal*, 21(83), 449–468.
- Smart, W. (1910). *Economic annals of the nineteenth century, 1801–1820*. London: Macmillan.
- Smith, A. (1789/1922). In: E. Cannan, E. (Ed.), *An inquiry into the nature and causes of the wealth of nations* (2 Vols.). London: Methuen.

- Spence, W. (1807). *Britain independent of commerce; or, proofs, deduced from an investigation into the true causes of the wealth of nations, that our riches, prosperity, and power, are derived from resources inherent in ourselves, and would not be affected, even though our commerce were annihilated*. London: T. Cadell and W. Davies.
- Staffa, P. (1930). An alleged correction of Ricardo. *Quarterly Journal of Economics*, 44(3), 539-544.
- Staffa, P. (1960). *Production of commodities by means of commodities: Prelude to a critique of economic theory*. Cambridge: Cambridge University Press.
- Staffa, P., & Dobb, M. (Eds). (1951-73). *The works and correspondence of David Ricardo*. Cambridge: Cambridge University Press.
- Torrrens, R. (1808). *The economist refuted, or an inquiry into the nature and extent of the advantages derived from trade*. London: S.A. Ody.
- Torrrens, R. (1812). *An essay on money and paper currency*. London: J. Johnson.
- Torrrens, R. (1815). *An essay on the external corn trade; containing an inquiry into the general principles of that important branch of traffic; an examination of the exceptions to which these principles are liable; and a comparative statement of the effects which restrictions on importation and free intercourse, are calculated to produce upon subsistence, agriculture, commerce, and revenue*. London: J. Hatchard.
- Torrrens, R. (1820). *An essay on the influence of the external corn trade upon the production and distribution of national wealth; containing an inquiry into the general principles of that important branch of traffic; an examination of the exceptions to which these principles are liable; and a comparative statement of the effects which restrictions on importation and free intercourse, are calculated to produce upon subsistence, agriculture, commerce, and revenue* (2nd ed.). London: J. Hatchard.
- Torrrens, R. (1821). *An essay on the production of wealth; with an appendix, in which the principles of political economy are applied to the actual circumstances of this country*. London: Longman, Hurst, Rees, Orme, and Brown.
- Torrrens, R. (1826). *An essay on the external corn trade* (3rd ed.). London: Longmans, Rees, Orme, Brown, and Green.
- Torrrens, R. (1829/1972). *An Essay on the external corn trade* (5th ed.). Reprint of Economic Classics, Clifton, NJ: Augustus M. Kelley.
- Torrrens, R. (1831). *Address to the farmers of the United Kingdom: On the low rates of profit in agriculture and in trade*. London: Longman.
- Torrrens, R. (1833). *Letters on commercial policy*. London: Longman.
- Torrrens, R. (1834). *On wages and combination*. London: Longman, Rees, Orme, Brown, Green, and Longman.
- Torrrens, R. (1837). *Letter to Lord Melbourne on the causes of the recent derangement in the money market, and on bank reform*. London: Longman, Rees, Orme, Brown, and Green.
- Torrrens, R. (1844). *The budget: On commercial and colonial policy*. London: Smith, Elder, and Co.
- Viner, J. (1937). *Studies in the theory of international trade*. London: George Allen and Unwin.