

Sraffa's Interpretation of Ricardo: A Retrospective View

**Paper written for presentation to The Ricardo Society of Japan, Saturday
17 December 2011.**

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Introduction

It was with great pleasure that I accepted an invitation to write the entry on Ricardo for the second edition of *The New Palgrave: A Dictionary of Economics*, not least because my contribution would replace the robustly ‘Sraffian’ entry in the first edition by Giancarlo de Vivo. However, although I could welcome the invitation as a triumph of good sense and balanced judgement on the part of the new editors (who had themselves replaced the Sraffian triumvirate of Eatgate, Milgate and Newman) it was sadly not the case that I believed the Sraffian interpretation to have been generally abandoned, or that my efforts would hasten such an end. On the contrary, among the shrinking number of western writers who express opinions on these matters, it is Sraffa’s interpretation, and particularly his ‘corn ratio’ interpretation of the early Ricardo, that continues to hold sway. What accounts for this dominance? One answer *might* be the strength of textual evidence in its favour. Yet, as I shall argue (again) in this presentation, the evidence, such as it is, is far from compelling. What seems to me of more relevance in explaining the popularity and longevity of the interpretation is the ‘herd instinct’ of those who have committed to the ‘Sraffian’ or ‘Neo-Ricardian’ alternative to mainstream, ‘Neoclassical’ economics, for whom the interpretation takes on the significance of an article of faith. It seems to have become part of their very identity to believe in the interpretation, and in the associated historical lineage for what they call the “surplus approach” to economic theorising. By transforming Ricardo into a historically juvenile version of himself, with similar objectives but with more primitive analytical tools, Sraffa had furnished an interpretation that suited admirably the purpose of ‘lineage-construction’ by his followers. I therefore attribute the continuing popularity of Sraffa’s interpretation mostly to ideological concerns rather than textual evidence.

In what follows I will again review Sraffa’s interpretation, with particular reference to the “corn-ratio” theory allegedly found in Ricardo’s early writings.

Sraffa and the “corn-ratio theory of profits” interpretation

On the 8th of March 1814 Ricardo dashed off a letter (“in great haste”) to Hutches Trower. With evident concern that his “very interesting papers on the profits of Capital” (as Trower described them) had been misunderstood by his friend, Ricardo set out to clarify his position, which he summarised with the terse proposition that “it is the profits of the farmer which regulate the profits of all other trades” (*Works* VI p. 104).

Over one century later, Piero Sraffa advanced an interpretation of Ricardo’s summary proposition that was suggested to him, not by Ricardo’s extant writings, but by developments in Sraffa’s *own* theoretical investigations¹. The interpretation was stated in the Introduction to Ricardo’s *Works* as follows:

The rational foundation of the principle of the determining role of the profits of agriculture, which is never explicitly stated by Ricardo, is that in agriculture the same commodity, namely corn, forms both the capital ... and the product; so that the determination of profit ... and also the determination of the ratio of this profit to the capital, is done directly between quantities of corn without any question of valuation. ... It follows that if there is to be a uniform rate of profit in all trades it is the exchangeable values of the products of *other* trades relatively to their own capitals (i.e. relatively to corn) that must be adjusted so as to yield the same rate of profit as has been established in the growing of corn; since in the latter no value changes can alter the ratio of product to capital, both consisting of the same commodity. (*Works* I p. xxxi, emphasis in original)

Ricardo’s proposition was thus transformed by Sraffa into a “principle”, later to become a “theory”², complete with a “rational foundation” for a “determining role of the profits agriculture”. Moreover, although the “rational foundation” was “never stated by Ricardo”, Sraffa appeared to have been in no doubt that Ricardo “*must have formulated it* either in his lost ‘papers on the profits of Capital’ of March 1814 or in conversation” (emphasis added);

¹ “It ... was only when the Standard system and the distinction between basics and non-basics had emerged in the course of the present investigation that the above [corn-ratio] interpretation of Ricardo’s theory suggested itself as a natural consequence.” (Sraffa 1960 p. 93)

² *Works* I p. xxxiii.

and, indeed, the “principle”, or “theory”, of the “determining role of the profits of agriculture” is said by Sraffa to have been a feature of Ricardo’s *Essay on Profits* (1815) and “Ricardo’s letters of 1814 and early 1815” (*Works* I p. xxxi).

The *Essay on Profits*

The *Essay* undoubtedly contains “determining”-type statements. For example: “the profits on agricultural capital cannot materially vary, without occasioning a similar variation in the profits on capital, employed on manufactures or commerce”; and, the “general profits of stock depend wholly on the profits of the last portion of capital employed on the land” (*Works* IV pp. 12n, 21). But we can be sure that these propositions were not thought *by Ricardo* to depend on “corn-ratio” assumptions because he categorically affirmed that agricultural capital does *not* consist solely of wheat/corn: it includes fixed capital “such as buildings, implements, &c”³. Moreover, Ricardo allowed that improvements “in the implements of husbandry” *and* a cheapening of “the commodities” (note the plural) “consumed by the labourer” would raise agricultural profits “*and therefore*, all other profits” (*ibid* pp. 19, 19n, 22, 26, emphasis added): the agricultural profit rate is represented as taking a “lead role” or “determining role” for “all other profits” *even though* neither fixed capital on the land (which includes the implements) nor the circulating capital (including some of the wage “commodities”) is entirely of the same physical nature as agricultural output.

There is another sense in which the *Essay* provided Sraffa with indirect evidence for his interpretation. Thus, the “numerical examples in the *Essay* reflect this [corn-ratio] approach; and particularly in the well-known Table which shows the effects of an increase of capital, both capital and the ‘neat produce’ are expressed in corn, and thus the profit per cent is calculated without need to mention price” (*Works* I p. xxxii). Turning to “the well-known

³ *Works* IV p. 10.

Table”, however, we find that “Capital” is described by Ricardo *not* as “expressed” but rather, more precisely, as “*estimated* in quarters of wheat” (*Works* IV p. 17, emphasis added). This estimation, or valuation, of capital had been signalled by Ricardo at the outset of his analysis in the main text of the *Essay*: capital employed on land in “the first settling of a country” is referred to as being “*of the value of two hundred quarters of wheat, of which half [consists] of fixed capital, such as buildings, implements, &c.*” (*ibid* p. 10, emphasis added); and, in the development of the argument, Ricardo at several points describes the additional capital required to produce extra output, and the total capital employed, as being “of the value of” so many quarters of wheat⁴. But, at the expense of stating the obvious, the *estimation* or *valuation* of (physically heterogeneous) agricultural capital in terms of wheat is not a “reflection” of “corn-ratio” assumptions; and, although prices are not “mentioned” by Ricardo, the only way he *can* value or estimate the non-wheat components of capital is by implicitly taking their relative prices (*vis-à-vis* wheat) as a known *datum*.

It is true that Ricardo does not *re-value* agricultural capital as agricultural conditions of production are assumed to worsen: a point latched on to by Malthus after the *Essay*’s publication⁵. This may, perhaps, have been (partly) responsible for lending a specious “corn-ratio” appearance to the *Essay*. But, the reason “the profit per cent is calculated without ... mention [of] price” is *not* that “capital and the ‘neat produce’ are expressed in corn”; it is rather that the corn/wheat value of non-wheat inputs is treated as a constant. The “need” not to mention price is a reflection of an assumption *about price*, not about the physical homogeneity of output and input.

There is a second trap in the *Essay* that could ensnare a reader into imagining a “corn ratio” resemblance or “reflection”. To take a conspicuous example, at the point at which Ricardo introduces his “well-known Table”, he explains that it “is constructed on the

⁴ See *Works* IV pp. 11 (one instance), 13 (two instances), 14 (two instances).

⁵ See Malthus’s letter to Ricardo of 12 March 1815 (*Works* VI p. 185) and to Horner of 14 March 1815 (*ibid* p. 188).

supposition, that the first portion of land yields one hundred quarters profit *on a capital of two hundred quarters*; the second portion, ninety quarters *on two hundred and ten* [quarters], *according to the foregoing calculations*” (*Works* IV p. 15, emphasis added). Now, the “foregoing calculations” include the assumption that the capital on “the first portion of land” is “*of the value* of two hundred quarters of wheat, of which half consisted of fixed capital, such as buildings, implements, &c.” (*Ibid* p. 10). In the later statement, however, the words “of the value of” are omitted, perhaps suggesting to an unwary reader –one who fails to scrutinise “the foregoing calculations”- that agricultural capital *physically consists* of wheat alone.

There are several other instances in the *Essay* of Ricardo switching between the ‘expanded’ formulation (capital *of the value of* so many quarters of wheat) and its ‘contracted’ variant (capital *of* so many quarters of wheat) as if they were identical⁶. To him, no doubt, they were identical, the latter being no more than a ‘shorthand’ version of the former. What may be taken from the *Essay*, therefore, is that when *Ricardo* wrote of capital as being *of* so many quarters of wheat, we certainly cannot take him to mean that it physically *consists* of quarters of wheat.

The *Essay* contained Ricardo’s most developed (extant) analysis during the period in which he was claimed by Sraffa to have subscribed to a “theory” of the “determining role of the profits of agriculture”: a theory underpinned, supposedly, by “corn-ratio” assumptions and a “corn-ratio” rationale. Yet, close inspection reveals that the *Essay* neither “reflects” nor supports a “corn ratio” attribution, explicitly or implicitly. Instead, it provides a clear warning that whenever Ricardo intimates a “determining” role for agricultural profits in other, more informal contexts (such as correspondence), we have no justification for crediting him with an *unstated* “rational [corn-ratio] foundation”. If the “determining role” did not depend on

⁶ See *Works* IV pp. 15, 15n, 16, 18.

“corn-ratio” assumptions in the *Essay* (as it did not), why suppose the position was any different elsewhere?

Ricardo’s letter to Malthus of 26 June 1814

According to Sraffa, the “nearest that *Ricardo* comes to an explicit statement on these [corn-ratio] lines is in a striking passage in a letter of [26] June 1814: ‘The rate of profits and of interest must depend on the proportion of production to the consumption necessary to such production’.” (*Works* I, p. xxxii, emphasis added) The passage cited by Sraffa would indeed be “striking” had it been worded as follows: “the *general* rate of profit must depend on the proportion of *corn* production to the *corn* consumption necessary to such production on the land”. But, in fact, Ricardo was *not* referring specifically to agriculture⁷; he had used similar expressions in his earlier ‘monetary’ writings⁸, again with no particular reference to agriculture; and the very same expression was perfectly acceptable to Malthus, who was in 1814 Ricardo’s antagonist over the “regulatory” role of farmers profits⁹. Certainly, the “striking passage” *could* be understood in strict “corn-ratio” terms, but there is no evidence of its understanding in those terms by Ricardo.

⁷ His main focus appears to have been “other things” (i.e. non-agricultural commodities), the argument being that a fall in the agricultural profit rate would be communicated to other sectors by means either of higher prices and a consequent reduction in demand, or increased money wages and *therefore* a fall in “the proportion of production to the consumption necessary to such production”.

⁸ *Works* III pp. 318-319, *Works* VI pp. 16-17.

⁹ See Malthus’s letter to Ricardo, 6 July 1814, *Works* VI p. 111.

Malthus's letter to Ricardo of 5 August 1814

The most compelling indirect evidence that Sraffa could muster for his “corn ratio” attribution -the evidence that led him to assert that Ricardo “*must have formulated it* [the “corn ratio theory”] either in his lost ‘papers on the profits of Capital’ of March 1814 or in conversation”- came not from Ricardo but from Malthus. Malthus corresponded:

In no case of production, is the produce exactly of the same nature as the capital advanced. Consequently we can never properly refer to a material rate of produce, independent of demand, and of the abundance or scarcity of capital. (Letter to Ricardo, 5 August 1814, *Works* VI p. 117)

On Sraffa's reading, Malthus's stricture was plain evidence of “Ricardo's own formulation”: a reference to a “material rate of produce” based on the assumption that produce (in agriculture) is “of the same nature as the capital advanced”.

I continue to believe that the most plausible target for Malthus's criticism was not Ricardo's “lost papers” (circulated five months earlier), or another sudden flashback, in this case to erstwhile conversation, but rather to a “corn calculation” introduced by Malthus himself in his letter to Ricardo of 6 July, only to be adopted and directed against him in Ricardo's reply. Malthus had written:

... you must mean that it is the *rate* of production, not the absolute quantity of produce, which determines profits. But even this rate of production, or more definitely speaking, the proportion of production to the consumption necessary to such production, seems to be determined by the quantity of accumulated capital compared with the demand for the products of capital, and not by the mere difficulty and expence of procuring corn. (6 July 1814, *Works* VI p. 111, emphasis in original)

Malthus then introduced *his* “corn calculation”;

If it [is] necessary to employ a hundred days labour instead of fifty, in order to produce a certain quantity of corn, there seems to be no reason whatever that the person who possesses an accumulation sufficient to make the necessary advances should have a less remuneration for his capital. The effects of a great difficulty in procuring corn would in my opinion be, a diminution of capital, a diminution of produce, and a diminution in the *real* wages of labour, or their price in corn; but not a diminution of profits (*ibid*, emphasis in original).

To which Ricardo replied:

The capitalist 'who may find it necessary to employ a hundred days labour instead of fifty to produce a certain quantity of corn' cannot retain the same share for himself unless the labourers who are employed for a hundred days will be satisfied with the same quantity of corn for their subsistence that the labourers for fifty had before. If you suppose the price of corn doubled, the capital to be employed estimated in money will probably be also nearly doubled, -or at any rate will be greatly augmented and if his money income is to arise from the sale of corn which remains to him after defraying the charges of production how is it possible to conceive that the rate of his profits would not be diminished? (25 July 1814, *Works* VI pp. 114-115)

Quite evidently, Ricardo had merely adopted *Malthus's* "corn calculation", which he had hoped to use to his own advantage, and would have succeeded in doing had he not mistakenly written "nearly doubled" instead of "nearly quadrupled". Malthus could not resist the opportunity to exploit that trivial mistake on Ricardo's part but, more seriously, he also recognised that the "corn calculation" was poorly suited to his own purposes:

If the nominal price of corn be doubled, and the nominal amount of capital employed, be not quite doubled which you seem to allow might be the case, instead of saying 'how is it possible to conceive that the rate of profits will not be diminished' I should say how is it possible to conceive that it should not be increased?

And then:

In no case of production, is the produce exactly of the same nature as the capital advanced. Consequently, we can never properly refer to a material rate of produce, independent of demand, and of the abundance or scarcity of capital. (5 August 1814, *Works* VI p. 117)

But who *had* referred to "a material rate of produce"?

Reverting to Malthus's letter of 6 July, it was he who had explicitly, and emphatically, focused the discussion on the "*rate* of production", and it was he (not Ricardo) who had introduced the "corn calculation". In other words, it was Malthus, not Ricardo, who had introduced something with the semblance of a "material rate of produce". But it was Ricardo who had then pointed out, in effect, that the calculation undermined Malthus's argument.

Realising that the calculation was indeed unhelpful –it allowed no scope for the 'output effect'

of the ‘competition of capitals argument’- Malthus’s response amounted to an injunction to abandon a line of reasoning that had been introduced *by him*.

It is also salient that Ricardo made no attempt to defend, or even mention, the assumption that “produce [is] exactly of the same nature as the capital advanced”. Thus:

Individuals do not estimate their profits by the material production, but nations invariably do. If we had precisely the same amount of profits of all descriptions in the year 1815 that we now have in 1814 as a nation we should be no richer, but if money had sunk in value they would be represented to a greater quantity of money, and individuals would be apt to *think* themselves richer. (11 August 1814, *Works* VI p. 121, emphasis in original)

Ricardo defends only the estimation of *profits* (i.e. the *amount* of profit) by “the material production”, not a calculation of the “material *rate* of produce” (or production) on the assumption of capital-produce homogeneity. That is significant, because it conforms to what he actually did elsewhere.

As Ricardo was to explain to Malthus, a diminishing ratio of “surplus produce ... to the capital employed on the land” –involving a “less *material* surplus produce”¹⁰- is “not only advanced, but strenuously maintained as the groundwork of my theory, and is the basis also on which my table [in the *Essay*] is formed” (21 March 1815, *Works* VI p. 197). As we know from the *Essay*, however, although the ratio of “material surplus produce” to “capital employed” had the *appearance* of a truly “material rate of produce” -indeed, a veritably “striking” appearance when Ricardo referred to agricultural capital as being *of* so many quarters of wheat- it was *not* based on the assumption that “the produce [is] exactly of the same nature as the capital advanced”. Thus, even if Malthus did believe (implausibly) that Ricardo had somewhere made use of a “material *rate* of produce”¹¹ outside their correspondence, there is the strong possibility that he was simply misled into thinking that it

¹⁰ Letter from Ricardo to Malthus, 14 March 1815, *Works* VI p. 190, emphasis added.

¹¹ An expression that *never* appears in any of Ricardo’s extant writings.

was predicated on capital-product homogeneity. Either way, Ricardo would have had no need to defend an assumption he had never made.

Ricardo's view of pricing and the competition of capitals' doctrine

It was October 1816 when Ricardo finally realised beyond doubt that he had abandoned the 'competition of capitals' doctrine. Previously, he had attempted to devise various strategies to convince Malthus, and perhaps also to convince himself, that the adjustment of "the profits of all other trades" to "the profits of the farmer" occurs by way of 'competition of capitals' mechanisms. Now, Ricardo undeniably gives the impression that a change in "the profits of the farmer" is something to which "the profits of all other trades" *must* conform, regardless of the adjustment mechanism invoked, and it is this presumption that lends the "corn-ratio" interpretation an air of plausibility. Seemingly overlooked by Sraffa, however, there is another basis for Ricardo's presumption of which there is evidence in his *extant* writing, namely, his belief in the pre-*Essay* period that "*the prices of all commodities must increase if the price of corn be increased*" (letter to Malthus, 25 July 1814, *Works* VI p. 114, emphasis added). Thus, a diminishing ratio of "surplus produce ... to the capital employed on the land" would be accompanied by a rise in the corn price, but the higher price would affect the produce, the corn/wheat capital *and the non-corn/wheat elements of capital*, with a lower *agricultural* rate of profit as the inescapable consequence. Ricardo could therefore maintain his "agricultural" theory of profit not *in spite of* (as suggested by Sraffa¹²) but *because of* his position on pricing: a position that gives "corn-ratio" properties to the argument (because value/price changes *are* common to product and *heterogeneous* elements of capital) *without* making "corn-ratio" assumptions.

¹² "At first he [Ricardo] had subscribed to the generally accepted view that a rise in corn prices, through its effects upon wages, would be followed by a rise of all other prices. He had not regarded this view as inconsistent with his theory of profit so long as the latter had been expressed in its primitive 'agricultural' form". (*Works* I p. xxxiii)

Aspects of Sraffa's interpretation of the later Ricardo

I will confine myself here to two related aspects of Sraffa's interpretation of the later Ricardo which also suggest (although not acknowledged as such by Sraffa) that they may have been prompted by Sraffa's own theoretical investigations.

The first aspect concerns Sraffa's characterisation of Ricardo's "principal problem in Political Economy":

The 'principal problem ...' was in his [Ricardo's] view the division of the national product between classes and in the course of that investigation he was troubled by the fact that the size of this product appears to change when the division changes. Even though nothing has occurred to change the magnitude of the aggregate, there may be *apparent* changes due solely to change in measurement (*Works* I p. xlviiii, emphasis in original).

The "principal problem" is presented by Sraffa as relating to changes in the division of a *given* national product (so-called *notional* changes). But that was not *Ricardo's* "principal problem", as may be seen from inspection of the most explicit reference given by Sraffa in support of his interpretation.

The reference is to the Preface to the *Principles*, where it is stated that the "principal problem" concerns "the laws which regulate" the "proportions of the whole produce of the earth which will be allotted to each of [the three social] classes" in "different stages of society"; or, as the problem is also phrased, "the natural course of rent, profit, and wages" (*Works* I p. 6). But *this* "principal problem" is not the same as Sraffa's version: it relates to changes in the division of "the whole produce" in *different* social "stages" (to the "natural course of rent, profit, and wages", i.e. their evolution *over time*), not to changes in the division of the produce of a *given* stage.

Sraffa had subtly transformed the "principal problem" into changes in the notional redistribution of a *given* social product on the assumption of *given* conditions of production (i.e. a version of Sraffa's *own* "principal problem"), whereas Ricardo's "principal problem" (as in the *Essay*, and in the chapters "On Rent" and "On Profit" in the *Principles*) concerned

“the natural course of rent, profit, and wages” resulting from *changes* in conditions of production, particularly the conditions of producing corn. From here, it was but a short step also to transform the purpose of Ricardo’s newly specified standard in edition 3 of the *Principles*, which became a device to ensure the value-invariance of a given social product to changes in its notional redistribution.¹³ What Ricardo actually sought –a device that would legitimise his use of a labour theory of value- had been relegated to the shadows.

Conclusion

It remains my position that Sraffa’s interpretation of key aspects of Ricardo’s work is unfounded. Of course, we can never rule out the possibility that Ricardo may have penned a true “corn calculation” in lost papers, or alluded to one in conversation, but there is no evidence that he believed it to be the “rational foundation” for his argument that “it is the profits of the farmer which regulate the profits of all other trades”. On the contrary, the surviving evidence points to his belief in a “regulatory” role for farmers’ profits that holds irrespective of the physical composition of agricultural capital. As I have suggested, Ricardo’s confidence in the “regulatory” role can be explained in terms of his known beliefs, particularly his Smithian-derived view of pricing. There is no need to fabricate an unstated and non-extant “rational foundation” in order to understand the argument of 1814-1815.

I also remain critical of Sraffa’s interpretation of Ricardo’s later work, especially his unjustified transformation of Ricardo’s “principal problem” into a concern with changes in the notional redistribution of a *given* social product, and the related error in presenting Ricardo’s edition 3 standard as a device to ensure the value-invariance of such a product. As with the “corn ratio” attribution, I would hazard that these aspects of Sraffa’s interpretation

¹³ The “problem of value which interested Ricardo was how to find a measure of value which would be invariant to changes in the division of the [social] product” (*Works* I p. xlviii). Sraffa further suggested that Ricardo may have succeeded in his quest with the edition 3 standard: “If measured in such a standard, the average price of all commodities, and their aggregate value, would remain unaffected by a rise or fall of wages” (*ibid*, pp. xlviv-xlv): i.e. a rise or fall of real (commodity) wages, not changes in the (labour) value of a *given* real/commodity wage.

were also prompted by developments made in the course of Sraffa's own theoretical investigations. Certainly, they bear little resemblance to Ricardo's.

Mention should also be made of Sraffa's claim that "the theory [of value] of edition 3 appears to be the same, in essence and in emphasis, as that of edition 1" (*Works I* p. xxxviii). With respect to the chapter "On Value", it seems to me that the chapter in the third edition is anything other than "the same, in essence and in emphasis" as the version in the previous two editions. On this point it must suffice to note that only in the third edition do we encounter an attempt by Ricardo to justify his use of the 'pure' labour theory in the light of his own discussion of the modifications wrought by differences in 'capital structure'. The result was a chapter markedly different –most certainly in emphasis- from the previous versions.

Needless to say, criticisms such as mine may be expected to have minimal effect on those who parade Ricardo as a trophy or, in their terms, as the historical inspiration for their "surplus tradition". I have come to expect nothing less.

References

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