

Early Ricardo's Theory of Profit: From Two-Sector Approach to Value Theory

Shigeyoshi Senga

Abstract:

Western researchers have been carrying out intensive studies on the profit theory of early Ricardo since 1973; however, some Japanese researchers had begun their critical studies on Sraffa's interpretation of that subject before them. One of the common problems discussed among Japanese researchers was whether Ricardo's progress to his value theory in the *Principles* was in line with Sraffa's interpretation, which traced Ricardo's progress from his corn-ratio theory to his labour theory of value. This paper, originally written in 1972, contends that Ricardo advanced from the two-sector analysis to value theory.

The two main points of my contentions are as follows. Firstly, Ricardo initially analyzed the subject of profits differently for the agricultural sector and the manufacturing sector but gradually conceived the subject as the problem of a whole economy. In other words, the contradiction of the two-sector analysis prompted him to develop a unified theory of value. Secondly, the unified labour theory of value in Ricardo, and in classical political economics in general, means that not only values of commodity but also distribution are regulated by technically and socially necessary labour. The value theory in his *Principles* arose out of Ricardo's recognition that an economy is organized as a society.

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I Introduction

Sraffa's interpretation of Ricardo's early theory of profits, which was propounded in the 'Introduction' to *Principles of Political Economy* (Sraffa 1951), in the first volume of Ricardo's *Works* (Ricardo 1951–73: hereafter *Works*), has evoked much controversy among Western Ricardo researchers since S. Hollander criticized it in his paper (1973). In Japan, however, some researchers had be-

gun critical studies of Sraffa's interpretation before Hollander's paper appeared. Regrettably, these studies were published in Japanese and their results are not known among Western researchers, although I believed their findings differ from those of Western studies. This paper was originally published in 1972 as one of the Japanese studies on Ricardo. This time, I have rewritten it in English for the benefit of other countries' researchers.¹⁾

It is the basic point of Sraffa's interpretation that early Ricardo's theory of profits was different from that of *Principles*. 'In the *Principles*, however, with the adoption of a general theory of value, it became possible for Ricardo to demonstrate the determination of the rate of profit in society as a whole instead of through the microcosm of one special branch of production' (Sraffa 1951, xxxii). That is, early Ricardo, both in his *Essay* and in his letters of 1814 and early 1815, adopted the method of considering the determination of the rate of profits through the microcosm of an agricultural branch. According to Sraffa, the advantage of Ricardo's method during the early period was that it was possible to understand how the rate of profit was determined without the question of valuation. That is so, because in agriculture the capital and the product are constituted in the same commodity (corn), so we can easily determine differences (profit rate) between the capital and the product by comparing physical terms ('corn-ratio theory'). In connection to this primitive 'agricultural form,' Sraffa pointed out, there was a principle in early Ricardo that 'it is the profits of the farmer that regulate the profits of all other trades,' but 'after the *Essay* this principle disappears from view, and is not to be found in the *Principles*' (Sraffa 1951, xxxi).

Secondly, Sraffa remarked about 'another theme' in Ricardo's thought, which was related to 'the generally accepted view that a rise in corn price, through its effect upon wages, would be followed by a rise of all other prices.' Ricardo had at first subscribed to this view, but he gradually recognized its inconsistency with his profit theory of 'agricultural form.' Its inconsistency is that if we suppose

the law of diminishing returns, the profit theory of agricultural form can easily demonstrate the decrease in the profit rate, whereas the generally accepted view cannot prove it because the price of product and the cost (the price of raw materials and wages) change together in the same direction. As a result, Sraffa considered, 'Ricardo groped towards a more general form of his theory,' that is, 'his full theory of value' (Sraffa 1951, xxxiii).

In summary, according to Sraffa, early Ricardo conceived that the agricultural profit rate was determined without any question of valuation and the general profit rate coincided with it, but Ricardo in *Principle* considered that the general profit rate that regulates all trades was determined through value relation. At the same time, Sraffa noticed early Ricardo's other consideration about the relation between corn price (monetary wages) and product price. Sraffa suggested that the latter consideration or its contradiction of the former agricultural profit theory encouraged Ricardo's progress towards a theory of value in the *Principles*. In addition, Sraffa seemed to consider the corn-ratio theory was lost in the *Principles*, but remarked about 'an echo of the old corn-theory,' which appeared in a letter of later Ricardo (cf. Sraffa 1951, xxxiii).

Contrasting with Sraffa's standpoint, Hollander contends that early Ricardo theory and *Principles* are identical. He said 'the same position as that ultimately appearing in the *Principles* was maintained from the very outset' (Hollander [1973] 1995, 19). Its identical position is that variations in the money-wage rate will be accompanied by inverse movements in the general rate of profit.

Hollander admits he recognized the proposition that the profits of the farmer regulate the profits of all other trades (he calls it 'the strong proposition'), but he interprets it as the expression of the proposition that 'Agricultural productivity which determines the price of corn, playing upon the money wage rate, influences profit generally' (ibid., 27). Hollander, I think, exclusively focuses on early Ricardo's secondary theory that was based on the relation between monetary wage and product price.

Hollander's interpretation came under attack by many Sraffians who consider the corn-ratio theory as not only a 'rational foundation' of the early Ricardo theory of profits but also as an essential aspect of Ricardo's later distribution theory. I doubt whether they would have gone further than their mentor who remarked only 'an echo of the old corn-theory' in later Ricardo.²⁾

Whereas Western studies on the profit theory of early Ricardo were carried out amidst heated controversies between Sraffians and Neoclassicists, Japanese studies took a neutral approach to Ricardo's *Works*, edited by Sraffa. The Japanese studies may appear to be much too meticulous, but, in my opinion, have a philosophical feature that analyzes the meaning of the classical labour theory of value. For Japanese political economists, classical labour theory of value was not only an economic value theory but also a social formation theory oriented towards modern civil society.³⁾

This paper aims to interpret the formation process of Ricardo's economics, tracing the advancement of Ricardo's value theory from two-sector analysis to the theory of society as a whole.

II Capital As a Productive Force

Ricardo began in real earnest his study of rates of profits by taking part in the Corn Law controversy. The main point of dispute was what effects would high corn prices due to restrictions on corn's importation have on a country's profits.

Ricardo argued that if the necessary quantities of corn do not come into Britain, domestic agriculture would increase and enlarge production. As a result, farmers must cultivate inferior lands and the marginal productivity of land would fall causing a decrease in farmers' profit rate and all other profits. He said,

As the profits of the farmer must necessarily decrease with every augmentation of Capital employed on the land, provided no improvements be at the same time made in husbandry, all other profits must diminish and therefore the rate of interest must fall. (Ricardo to Trower, 8 March 1814, *Works*, VI, 104)

It should be remarked that Ricardo is here considering the farmer's profit rate as directly relating to the productivity of land. He pays no attention to its relation along with other influences on prices, income distribution, and so on. He also does not give the reason why all other trades' rates of profits follow the farmer's profit rate. His reasoning may be that agriculture is a necessary trade sector for the whole country and the general profit rate should become uniform in all the trades under market competition.

Malthus, who became an opponent of this controversy, doubted that the higher

price of corn would lead to the fall of the profit rate.

He said,

But high profits and interest are more frequently, you will allow, the concomitants of poverty than abundance. You observe that in the case supposed, there would be less production and less demand with the same capital; but surely there would be *much less capital*. There would be a smaller quantity both of corn, and of all other commodities, and every monied accumulation would command less labour and less produce. The question then seems to be whether production or demand would decrease the faster? and as in my opinion the dearness of labour would have more effect in diminishing capital than in diminishing revenue, particularly rents, I do not see why the usual effects of a diminution of capital should not take place. (Malthus to Ricardo, 6 July 1814, *Works*, VI, 110)

In Malthus's view, high rates of profits and interest do not accompany abundance (for example, high productivity, as Ricardo thought) but rather scarcity, for example, that of capital. When the corn price rises, capital (which normally is accumulated in money) can buy a smaller quantity of corn than when the corn price is cheaper. So the real material quantity of capital must decrease. As a result, the product of the real capital decreases, but the demand for that produce does not decrease at the same rate. The demand exceeds the supply and the profit rate rises. That is Malthus's reasoning for the profit rate's rise due to restrictions on the importation of corn.

Malthus's letter cited above was his response to Ricardo's letter of 26 June 1814. Here we quote Ricardo's letter.

I cannot partake of your doubts respecting the effects of restrictions on the importation of corn, in tending to lower the rate of interest. The rise of the price or rather the value of corn without any augmentation of capital must necessarily diminish the demand for other things even if the prices of those commodities did not rise with the price of corn, which they would (tho' slowly) certainly do. With the same Capital there would be less production, and less demand. Demand has no other limits but the want of power of paying for the commodities demanded. Every thing which tends to diminish production tends to diminish this power. The rate of profits and of interest must depend on the proportion of production to the consumption necessary to such production,—this again essentially depends upon the cheapness of provisions, which is after all, whatever intervals we may be willing to allow, the great regulator of the wages of labour. (*Works*, VI, 108)

In this letter, Ricardo also admits that the domestic production decreases due to the restriction of corn importation, but the reason the domestic production decreases seems to be different from the reason given by Malthus. Ricardo did not think that the capital itself changes, as is evident by his words 'without any augmentation of capital' or 'with the same Capital.' In his opinion, the production decreases 'with the same Capital' (it should be noted that the capital letter C is

used here). This view differs from his opinion expressed in his letter to Trower which we quoted above. His idea was that the rate of profits of farmers falls with the augmentation of capital. Did he change his idea? Not necessarily so. We can find his meaning a little later in his letter to Malthus (25 July 1814), in which he said,

Restrictions on the trade of corn, if capital suffers no diminution, will occasion a fall in the rate of profits and interest. A reduction of capital independently of restrictions on importation of corn will have a tendency to raise profits and interest,—but there is no necessary connection between these two operating causes. (*Works*, VI, 114)

Ricardo criticized Malthus for adding a new condition of the change of capitals that had no connection with the restriction on importation of corn. Ricardo believed that the restriction on corn importation lowers the rate of profits independently of changes in the quantity of capitals. In his view, the rate of profits of farmers falls with the augmentation of capital, but he also said that the profit rate and interest rate decrease without any augmentation of capital. I guess that Ricardo here means that the total Capital (Ricardo used capital letter C) of Britain did not change but that the capital of the farmers increased because a certain quantity of capital would be transferred from manufactures to agriculture as the result of restrictions on corn importation.

Then, why does 'production' decrease in Ricardo's reasoning? The 'production' must mean the total production of the country, since the production of farmers will not de-

crease to compensate for the shortage due to restriction on the importation of corn. That is to say, the production of the farmers in Britain must be the same. The total production of the whole country decreases because some capital of the country is transferred from the manufacturing sector to the agricultural sector. Ricardo thought, I assume, that the whole production including agricultural products would decrease.

One of the disagreements between Ricardo and Malthus resulted from their different concepts of the form of capital. For Malthus, capital was 'monied accumulation' for the time being. So he assumes that material capital decreases due to the rise of the corn price when the existent money capital is changed into material capital. On the contrary, Ricardo seems to refer to capital as 'a power of production,' which means, for example, quantity of labour. Capital or quantity of labour may not change even if importation of cheap corn is restricted. As a certain quantity of corn, however, is necessary to maintain the capital (quantity of labour), a part of the whole capital should be transferred from other sectors to agriculture, so that the production of the whole country would decrease. According to Ricardo, the price of corn due to the restriction on importation of corn would not merely change the corn price in the market but also decrease productivity on the farm. Support for my interpretation can be seen in Ricardo's expression, 'the rise of the price or rather the value of corn.' I think that 'value' in his expression is not related to money (price) but to 'the difficulty of the production,' which we will see below.⁴⁾

Ricardo seems to think implicitly about an economy with its land cultivated with cer-

tain provisions. The more easily people produce necessary provisions; the higher profit rates the economy experiences. This is the meaning behind his expression, 'it is the profits of the farmer which regulate the profits of all the trades.' This expression, however, at this stage was not based on sufficient reasoning with respect to the decline of the general profit rate.

III What Does the Profit Rate Depend On?

Both Ricardo and Malthus thought that the restriction on importation of corn results in the decrease of production. Then, as mentioned above, Malthus considers that demands do not decrease at the same rate as production, so the prices rise and the rate of profits rises. He was concerned not with 'the permanence of effects' (*Works*, VI, 128) but with short-range factors that determine the rate of profits. His central idea was 'the *proportion of demand* to the *supply* which was always the main point in question, as determining prices and profits' (*Works*, VI, 117; italic is Malthus's). This idea was expressed from another point of view, that is to say, 'It is not the *quantity* of produce compared with the expence [*sic*] of production that determines profits, (which I think is your proposition) but the exchangeable value or money price of the produce, compared with the money expence [*sic*] of production.' (*Works*, VI, 140–41; italic is Malthus's) In short, Malthus attaches much importance to monetary relations in the market.

Contrary to Malthus, for Ricardo, production was most important. As we saw in his letter of 26 June 1814, Ricardo's idea was that 'the rate of profits and of interest must

depend on the proportion of production to the consumption necessary to such production' (*Works*, VI, 108) He contrasts the production not with demand but with the consumption necessary to such production. Why does he not refer to 'demand'? His idea on this point was that 'demand has no other limits but the want of power of paying for the commodities demanded.' Ricardo thought that the 'power of paying' can be derived from 'production,' so that 'production' is equal with 'demand.' In Ricardo's theory, 'demand' has no space in which to display its own power.

It is very clear that Malthus was referring to economic quantities (production, demand, etc.) in money terms. What did Ricardo have in mind? When he refers to production, consumption, demand, etc. does he imagine them as material quantities? As we saw above, Malthus guessed that Ricardo regarded them as material concepts. Ricardo, however, rejected such Malthus's interpretation and said,

You say "that I seem to think that the state of production from the land, compared with the means necessary to make it produce, is almost the sole cause which regulates the profit of stock, and the means of advantageously employing capital." This is a correct statement of my opinion, and not as you have said in another part of your letter, and which essentially differs from it, "that it is the *quantity* of produce compared with the expense of production, that determines profits." (Ricardo to Malthus, 23 October 1814, *Works*, VI, 144)

Ricardo accepted the expression, 'the state of production,' but rejects the expression, 'the

quantity of produce.' What he means in the above reply can be understood by reading the sequel to the paragraph.

But improvements in agriculture, or in machinery, which shall facilitate or augment production, will, according to my proposition, increase profits, because "it will augment production compared with the means necessary to that production." (*Works*, VI, 145)

It is clear that Ricardo's concern was about the problem of productivity. He is looking for the proper term to measure productivity. He must be dissatisfied with both material terms and money terms.

IV A Theory of Determination of the Profit Rates Distinguished by Sector

It is not easy to understand Ricardo's proposition that 'the rate of profits and interest must depend on the proportion of production to the consumption necessary to such production.' He seemed to reject comparing production with consumption not only in money terms but also in material terms. Where did this obscurity come from? To answer this question, I will quote below two parts of Ricardo's letters to Malthus in which Ricardo argued more specifically about the effects of restrictions on the importation of corn.

The capitalist "who may find it necessary to employ a hundred days labour instead of fifty in order 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 satis-

fied with the same quantity of corn for their subsistence that the labourers employed 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 monied 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 will not be diminished? (Ricardo to Malthus, 25 July 1814, *Works*, VI, 114–15)

It is true that the Woolen or Cotton manufacturer will not be able to work up the same quantity of goods with the same capital if he is obliged to pay more for the labour which he employs, but his profits will depend on the price at which his goods when manufactured will sell. If every person is determined to live on his revenue or income, without infringing on his capital, the rise of his goods will not be in the same proportion as the rise of labour, and consequently his percentage of profit will be diminished if he values his capital, which he must do, in money at the increased value to which all goods would rise in consequence of the rise of the wages of labour. (Ricardo to Malthus, 11 August 1814, *Works*, VI, 119–20)

Of these two letters, the first letter is referring to the agricultural sector and the second letter to the manufacturing sector. It should be noted that Ricardo applies a different theory of profits by sector.

In the former letter, Ricardo assumes that the rise in the price of corn results from an

increase of labour to produce a certain given quantity of corn in the domestic agriculture. If we assume the rate of real wages to be constant, then the rate of profits in agriculture seems to decline because the necessary amount of wages (which is paid to the increased labour) increases. In the latter letter, however, Ricardo assumes that the increase of the rate of money wages is a result of the increased price of corn. He also assumes that the price of manufactured goods does not rise at the same rate as that of corn. Although there is no increase of labour necessary in manufactures, the profit rate in the manufacturing sector must fall because of the difference between the rises in the money price of goods and that in the rate of money wages.

Why did Ricardo change the reasoning by sector? In the agricultural sector, he assumes the decrease of productivity to be a result of the extension of cultivation to inferior lands, but there is no reason to make the same assumption regarding the manufacturing sector. In the manufacturing sector, he can assume a difference in the rates of price increase between manufactured goods and corn, because they are different kinds of goods, but in agriculture, especially in corn production, the product and the wage goods are quasi-homogeneous, so that it is difficult to assume difference in the rates of increase in price.

Ricardo's reasoning that differs according to sector can be explained by the difficulty he had in proving the fall of profit rates. Since Ricardo did not say that the wage basket comprises only agricultural goods, in particular, corn, it is difficult to compare the product with the capital (amounts of labour) without any valuation.

It is difficult to understand why he said that capital 'will probably be also nearly doubled.' I must say that this was a wide guess. There is the same problem regarding the argument about the manufacturing sector. The assumption that the rate of the rise in the price of manufactured goods is smaller than that of corn is also assumed without any explanation.

In addition, since his reasoning is different by sector, I cannot judge if the level of decline in the rates of profits for both sectors are different or the same. That is to say, it is impossible to make sure of the decline of general profit rate and to ascertain the level of decline. This problem may be one of the reasons Ricardo had to assume a dogma that 'it is the profits of the farmer that regulate the profits of all other trades.' Only by means of this dogma could he explain the decline of the general profit rate as a result of restricting the importation of corn.

It may also be that obscurity in the early Ricardo proposition regarding the fall of the profit rates arose from his reasoning based on distinctions by sector. In the argument on the agricultural sector, Ricardo concentrated on the decrease of productivity; but in the case of the manufacturing sector, he was concerned with the relation between the price of products and the rate of money wages. In the earlier period, Ricardo's proposition was 'the rate of profits and of interest must depend on the proportion of production to the consumption necessary to such production.' This can be regarded as combining two ways of reasoning that are distinguished according to sector.

If Ricardo wished to demonstrate the fall of the general rate of profits using one way

of reasoning, he had to find a new principle by which he could unite the two different approaches to reasoning.

V Ricardo's Theoretical Development in *Essay on Profits* (1815)

On 23 February 1815, Ricardo published his '*Essay on the Influence of a Low Price of Corn on Profits of Stock*' (referred to hereinafter '*Essay*'). This *Essay* was one of the many pamphlets published to contribute to the debates in the House of Commons on the bill for revision of the Corn Law. Ricardo, as a matter of course, expressed his objection to the Corn Law. From my point of view, this *Essay* is important as the final stage of his two-sector approach to profit theory.

Ricardo started the *Essay* by discussing a theory of rent. It seems a little strange because he had not made reference to rents before then. However, if we read his argument there carefully, we can understand that his theory of rent was complementary to his theory of profits in explaining the decline in the *agricultural* profit rate.

So far, Ricardo had argued that the fall in the *agricultural* profit rate was caused by a decrease in productivity resulting from the expansion of cultivation to inferior lands. This argument, however, does not explain the fall of the rate of profits in the *agricultural* sector as a whole. It is true that it explains the fall in the rate of profits for the inferior lands, but it does not follow that the rates of profits of more fertile lands decline as well. If the profit rates of *agricultural* capitals should be equal, what happens to the surplus profits which the fertile lands would yield in comparison with the least fertile? Ricardo and West (one of the pamphleteers) both

considered that the surplus profits would be distributed not to farmers but to landlords as rent. They thought that rents are created by differences of fertility or situations and that there is no rent on the worst land. Their theories contrast with Malthus's idea that rents are regarded as a present to land from Nature so that some rent would be generated on every land. I think that the essence of early Ricardo's complementary theories of profit and rent is expressed in the following quotation from the *Essay*.

Thus by bringing successively land of a worse quality, or less favourably situated into cultivation, rent would rise on the land previously cultivated, and precisely in the same degree would profits fall. (*Works*, IV, 14)

Profits of stock fall because land equally fertile cannot be obtained, and through the whole progress of society, profits are regulated by the difficulty or facility of procuring food. (*Works*, IV, 13)

It should be remarked that in the first quotation, Ricardo is contrasting the decline of the profit rate with the increase of rent. As we know, in the *Principles*, Ricardo relates the decline of the rate of profits to the rise of the wage rate (the inverse theory of wage-profit). This means Ricardo, in the *Essay*, is initially considering the decline of profit rates in the *agricultural* sector. In the second quotation, however, he refers to a cause of the fall of the general rate of profits and points out that it is caused by the difficulty in procuring food. I think that Ricardo's chain of reasoning is that restricting the importation

of corn leads to increased difficulty in procuring food, then to decline of profit rates in the agricultural sector and of the general profit rate. It is important to note that in Ricardo's reasoning, the cause of decline of the profit rate in agriculture and in general is attributed not to the increase of the wage rate but to the decrease of productivity in procuring food.

After explaining the theory of rent, Ricardo proceeds to the problem of the decline in the *general* profit rate. He says,

If the money price of corn, and the wages of labour, did not vary in price in the least degree, during the progress of the country in wealth and population, still profits would fall and rents would rise; because more labourers would be employed on the more distant or less fertile land, in order to obtain the same supply of raw produce; and therefore the cost of production would have increased, whilst the value of the produce continued the same.

But the price of corn, and of all other raw produce, has been invariably observed to rise as a nation became wealthy, and was obliged to have recourse to poorer lands for the production of part of its food; and very little consideration will convince us, that such is the effect which would naturally be expected to take place under such circumstances. (*Works*, IV, 18–19)

The difference between the first paragraph and the second should not be overlooked. In the first paragraph, Ricardo puts aside the changes in the corn price and the rate of money wages. Then he attributes the cause of decline of the general profit rate to the in-

crease of labour to obtain the same quantity of produce, that is to say, to the decrease of productivity in agriculture. In the next paragraph, however, he assumes the rise of the corn price and suggests the rise of the rate of wages as the cause of the fall in the general profit rate. He continues,

The exchangeable value of all commodities, rises as the difficulties of their production increase. If then new difficulties occur in the production of corn, from more labour being necessary, whilst no more labour is required to produce gold, silver, cloth, linen, &c. the exchangeable value of corn will necessarily rise, as compared with those things. On the contrary, facilities in the production of corn, or of any other commodity of whatever kind, which shall afford the same produce with less labour, will lower its exchangeable value. Thus we see that improvements in agriculture, or in the implements of husbandry, lower the exchangeable value of corn; improvements in the machinery connected with the manufacture of cotton, lower the exchangeable value of cotton goods; and improvements in mining, or the discovery of new and more abundant mines of the precious metals, lower the value of gold and silver, or which is the same thing, raises the price of all other commodities. Wherever competition can have its full effect, and the production of the commodity be not limited by nature, as in the case with some wines, the difficulty or facility of their production will ultimately regulate their exchangeable value. The sole effect then of the progress of wealth on prices, independently of all improvements, either

in agriculture or manufactures, appears to be to raise the price of raw produce and of labour, leaving all other commodities at their original prices, and to lower general profits in consequence of general rise of wages. (*Works*, IV, 19–20)

This paragraph is well known among Ricardo researchers as the first expression of his labour theory of value. Sraffa pointed out that Ricardo shortly after the publication of the *Essay* modified his position about 'leaving all other commodities at their original prices.' This fact means that Ricardo was uncertain about his labour theory of value at this stage. It should be remarked that in this paragraph, we can see only one of the two approaches to reasoning to prove the decline of the general profit rate. As I have shown, his first reasoning depends on the decrease of productivity in agriculture. Contrasting with it, in this paragraph, the cause of the decline of the general profit rate is attributed to price difference between the prices of the products and the price of raw produce and labour. It is very clear that this reasoning is valid in all sectors except agriculture. In the agricultural sector, the price of the product and the price of the raw produce (containing materials of the wage) increase at the same time, so it is difficult to prove that their difference will decrease. The central point of my interpretation is that Ricardo in the *Essay* still remains in the framework of his theory of determining the profit rate as distinguished by sector.

I believed that my interpretation is confirmed by two other quotations from the *Essay*.

The first quotation shows that Ricardo

still insists on the priority of the agricultural sector in the determination of the general profit rate. He says,

Nothing is more common than to hear it asserted, that profits on agriculture no more regulate the profits of commerce, than that the profits of commerce regulate the profits on agriculture. It is contended, that they alternately take the lead . . . But if the principles respecting the progress of rent be correct, it is evident, that with the same population and capital, whilst none of the agricultural capital is withdrawn from the cultivation of the land, agricultural profits cannot rise [even if the profits of commerce rise]. . . . (*Works*, IV, 23–24)

Ricardo insists that the profit rate of the commercial sector does not regulate the profit rate of the agricultural sector. He still keeps his early dogma that 'It is the profits of the farmer which regulate the profits of all trades.'

The second evidence is found in his ambiguity on class differences. In the *Principles*, he could make a clear distinction between the interest of landlords and that of farmers (agricultural capitalists). When the price of corn rises, landlords of fertile lands can receive more rent but farmers as capitalists lose a part of their profits caused by the fall of the general profit rate. This is a result of the price increase of corn and of the rate of money wages. It is an important insight in the *Principles* that the farmers (agricultural capitalists) cannot obtain a higher profit rate than the capitalists of the other sectors even if the price of corn rises. In the *Essay*, however, Ricardo says,

As the revenue of the farmer is realized in raw produce, or in the value of raw produce, he is interested, as well as the landlord, in its high exchangeable value, but a low price of produce may be compensated to him by a great additional quantity. (*Works*, IV, 21)

The farmers in the latter part of the above quotation are classified as capitalists but in the former part they are classified as a part of the interest group of agriculture. In the *Essay*, Ricardo could not analyze the different interests of respective classes, unlike in the *Principles*. I have pointed out that he was still fettered by his early distinction between the agricultural and manufacturing sectors.

VI The Development After the *Essay*

The bill for the revision of the Corn Law was passed in the Parliament on 10 March 1815. Ricardo and Malthus, however, continued their controversy about the economic effects of changes in corn price.

The most controversial issue was the relation between the price of corn and the prices of other products. Ricardo modified his position in the *Essay* that a rise of corn price would leave all other commodities at their original prices. He considered then that variation in the price of corn changed the prices of products insofar as corn entered the means of production as raw material. He, however, argued that the products in this case were 'subject to a variation in price not on account of increased or diminished wages' (*Works*, VI, 179). That is, he maintained the proposition that the prices of manufactured goods remain constant even if the corn price changes.

Malthus raised a new problem. It was on 'the effect of a rise in the relative price of corn, upon the whole surplus derived from land already in cultivation' (*Works*, VI, 185). Malthus remarked that the real capital of the farmer does not consist merely in raw produce (corn), but also in ploughs, wagons, threshing machines etc. and tea, sugar, clothes etc. used by his labourers. His idea was that farmers could purchase the same quantity of these commodities with less raw produce when the relative price of corn rose to these commodities, so that the greater surplus would remain in the shape of rent and profits together. Malthus implied that this surplus would form the demand resulting in the price rises of manufactured goods. From this point of view, the profit rate of manufactured goods would rise contrary to Ricardo's contention.

Ricardo immediately replied,

If no more labourers were employed and the price of corn rose your proposition could not be disputed, but the cause of the rise of corn is solely on account of the increased expense of production. (Ricardo to Malthus, 14 March 1815, *Works*, VI, 189)

You, I think, agree with Mr. Torrens that a rise in the price of corn will be followed by a rise in the price of home commodities; . . . Mr. Torrens theory however on this part of the subject appears to me defective, as I think that the price of commodities will be very slightly affected either by a rise or fall in the price of corn. If so every rise in the price of corn must affect profits on manufactures, and it is im-

possible that agricultural profits can materially deviate from them. (Ricardo to Malthus, 17 April 1815, *Works*, VI, 212–13)

From Ricardo's point of view, it is impossible that the cost of production in the corn sector should diminish with a rise in corn price because the high corn price is caused by increase of the labour necessary to cultivate inferior lands. On the other hand, the price of manufactured goods cannot change except for a slight alteration in the price of raw materials because there is no change in the productivity of their production. Ricardo is here confirming his position that relative prices of products are determined by necessary labour for production of each product and the change of the relative prices cannot be judged by their relation to other commodities with which they happen to be exchanged. (The topic of the measure of value will be discussed below.)

At the same time, the last part of this letter deserves our attention. Ricardo had insisted that the farmer's profit rate regulates other industries' profit rates. In this part of the letter, however, he says that the agricultural profit rate follows the profit rate of manufactures. What happened to Ricardo? I try to discern his intentions in the following letter.

... If a large tract of rich land were added to the Island ... You think that "before any fall of price had taken place capital would be removing fast from old land, *and from manufactures*,"—I think that capital would go from the old land to manufactures, because a given quantity of food only being

required, that quantity could be raised on the rich land added to the Island, with much less capital than was employed on the old, and consequently all the surplus would go to [manu]factures to procure other enjoyments for the society, and profits on the land would rise at the expence of the rent of the landlord, whilst the cheaper price of corn would raise the profits on all manufacturing capital. I confess it appears to me impossible that under the circumstances you have supposed the relative value of corn would fall, not from the facility of procuring it, but from a rise in the value of manufactures. You suppose that corn would remain at the same price whilst manufactures rose in price,—I on the contrary think that the price of manufactures would continue nearly stationary whilst the price of corn would fall. Is not this the natural consequence of more capital being employed on manufactures and less on agriculture? (Ricardo to Malthus, 21 April 1815, *Works*, VI, 220–21; italic is Ricardo's)

This is the reverse case to restriction of the importation of corn, in which the price of corn will fall. Ricardo seems still to maintain the distinction between agriculture and manufacture. He points out that agriculture is not extended because a given quantity of food only is required in the nation. This is one of the reasons by which he asserts the farmers' priority in determining the general profit rate. In addition, he says that agricultural profits increase at the expense of the landlord but manufactures' profit rate rises as a result of cheaper corn. Despite his insistence on sector difference, however, he proceeds to consider change in the profit rate explicitly

as a whole nation.⁵⁾ The change of profit rates in both sectors are observed from the point of view of the national capital, and are not separated from each other. Above all, the change of relative prices of agricultural product and manufactured goods are treated by the same reasoning that they are regulated by quantities of capital (it is another expression for quantity of labour).

In the following, letter you can find an example supporting my interpretation that Ricardo is considering the distribution problem from the viewpoint of a whole nation.

The effect of high or low wages on profits has always been distinctly recognized by me;—till the population increases to the proportion which the increased capital can employ, wages will rise, and may absorb a larger portion of the whole produce. (Ricardo to Malthus, 8 May 1815, *Works*, VI, 226)

The following necessary step for Ricardo is to define the relation among the relative prices determined by quantities of labour and the wages which were paid to the labourers. This definition is given in the following letter.

Wages do not depend upon the quantity of a commodity which a day's labour will produce, and I can not help thinking you quite incorrect when you say that the natural consequence of the facility of production being so increased that a day's labour will produce four measures of corn, cloth and cotton instead of two measures, will be, that 4 measures of corn cloth and cotton will be worth only the price of a day's

labour instead of 2. It appears to me that if, instead of 4, ten measures could be produced by a day's labour no rise would take place in wages, no greater portion of corn, cloth or cotton would be given to the labourer . . . (*Works*, VI, 226–27)

Ricardo's idea here is that the level of real wage does not change even if the productivity of labourers changes. By this recognition, Ricardo could now abandon his early profit theory distinguished by sector and advance towards his general theory that alteration of wage (corn) rate changes profit rates, but not relative prices.

VII A Theory of an Invariable Measure of Value

There is another issue mentioned in the late section, which I would now like to discuss. After the *Essay*, Malthus raised a new problem about the effect of a rise in the relative price of corn on agricultural capitals which consist of manufactured goods. If we measure the value of capital by the corn whose price has been raised, it is clear that capital expenses decrease and more surpluses remain with the farmers. As we observed, Ricardo argued at first that the agricultural capital must increase when the price of corn rises. Malthus' new argument, however, contained another issue. Is it right to measure values of commodities by corn? If Ricardo takes corn as the measure of value, then the values of manufactured goods have to decline when the price of corn rises. That result contradicts his assumption that prices of manufactured goods change in the slightest degree only insofar as corn is raw material for their production.

Ricardo's sensible approach to the problem is found in his pamphlet 'Proposals for an Economical and Secure Currency,' which was written in the summer of 1815. It addresses the problem of the Bank of England, not the Corn Law. When he discussed currencies, Ricardo had mentioned the problem of measure of value. We can find his definition of the differences between price and value in the following quotation from Ricardo.

The price of a commodity is its exchangeable value in money only.

The value of a commodity is estimated by the quantity of other things generally for which it will exchange.

The price of a commodity may rise while its value falls, and vice versa. A hat may rise from twenty to thirty shillings in price, but thirty shillings may not procure so much tea, sugar, coffee, and all other things, as twenty shillings did before, consequently a hat cannot produce so much. The hat, then, has fallen in value, though it has increased in price. (*Works*, IV, 60)

Ricardo points out the uncertainty of prices because prices are estimated by a commodity, money. As a result, prices are only comparative values estimated by any one commodity. Corn may be appropriate for the measure of exchangeable values but inappropriate for the measure of value. The value should be measured by the quantity of all other commodities. Ricardo, however, pointed out,

It has indeed been said that we might judge of its value by its relation, not to one,

but to the mass of commodities . . . when we consider that commodities are continually varying in value, as compared with each other; and that when such variation takes place, it is impossible to ascertain which commodity has increased, which diminished in value, it must be allowed that such a test would be of no use whatever. (*Works*, IV, 59)

In short, Ricardo considered that a measure of value is neither a commodity nor 'commodities generally' (*Works*, IV, 61). His conclusion was,

. . . indeed, without an invariable measure of value, and none such exists, it is impossible to ascertain it [value] with any certainty or precision. (*Works*, IV, 60)

Ricardo thought that a standard of value should not be merely a commodity but should instead be a commodity that does not change in value. That recognition by Ricardo was tragic because it meant he looked for something which did not exist. He was, however, able to find the most important piece of this puzzle. In a letter to J. Mill, Ricardo revealed his worry about the measure of value. That letter was written during the process of preparing his *Principles*.

I know I shall be soon stopped by the word price, and then I must apply to you for advice and assistance. Before my readers can understand the proof I mean to offer, they must understand the theory of currency and of price. They must know that the prices of commodities are affected two ways one by the alteration in the relative

value of money, which affects all commodities nearly at the same time,—the other by an alteration in the value of the particular commodity, and which affects the value of no other thing, excepting it ent [er] into its composition.—This invariability of the value of the precious metals, but from particular causes relating to themselves only, such as supply and demand, is the sheer anchor on which all my propositions are built; for those who maintain that an alteration in the value of corn will alter the value of all other things, independently of its effects on the value of the raw material of which they are made, do in fact deny this doctrine of the cause of the variation in the value of gold and silver. (*Works*, VI, 348–49)

Ricardo was going to tell his reader about the differences between price and value. Price is estimated by money and it changes when not only the commodity value itself but also the value of money change. Value must be estimated by an invariable measure of value and then change only when value of the commodity itself changes. Ricardo could solve the puzzle by assuming the value of a precious metal (that is, money) to be invariable. If we could measure values of commodities by such a precious metal, prices of the commodities would express their own values. In that case, Ricardo was convinced; prices of manufactured commodities remain unchanged even if the value of corn alters. Values of commodities change only when their own productivity changes. Ricardo was close to his labour theory of value.

Lastly, I must point out that Ricardo could unify two profit theories distinguished

by sector on the assumption of an invariable measure of value (this assumption is united with Ricardo's labour theory of value). If there were such a measure, the values of both agricultural product and manufactured goods would be determined by their own productivity but would not be changed by alteration in the rate of wages. Ricardo could then arrive at his theory of the inverse relation of wage–profit.

VIII Conclusion

In this paper, I have argued that early Ricardo's reasoning on profit theory was distinguished by sector. I interpreted Ricardo's reasoning about the decline of the profit rate, which differed according to sectors. That is, Ricardo attributed the decline of the profit rate in agriculture to the decrease of productivity but that in manufactures to the reduction in the difference between price and wage. It is my main contention that the two reasonings are incorporated in the *Principle's* labour theory of value as a theory of economic social formation.

It was Sraffa who pointed out that there were two forms of profit theory in early Ricardo. He called them 'primitive agricultural form' and 'more general form.' According to Sraffa, the profit rate in agriculture is determined directly and decidedly by the differences between the quantities of corn. This profit theory was 'expressed in the primitive 'agricultural' form,' as Sraffa called it (*Works*, I, xxxiii). At the same time Sraffa remarked that Ricardo advanced towards 'a more general form of his theory' (*Works*, I, xxxiii). This is the theory that the prices of other commodities do not change even if the price of corn changes.

Sraffa found two forms of profit theory in early Ricardo, but he recognized the relation between early Ricardo and the *Principles* as follows.

In the *Principles*, however, with the adoption of a general theory of value [labour theory of value], it became possible for Ricardo to demonstrate the determination of the rate of profit in society as a whole instead of through the microcosm of one special branch of production. (*Works*, I, xxxii)

The last phrase 'one special branch of production' means the agricultural sector. That is, Sraffa considers that Ricardo's *Principle* developed from an analysis of the agricultural sector to involve a theory of society as a whole. Sraffa, in fact, neglected early Ricardo's analysis of the manufacturing sector. I agree with Sraffa's interpretation that Ricardo created his labour theory of value by observing the society as a whole, but disagree with his idea that the labour theory of value in the *Principles* was fundamentally constituted on the same logic as that behind 'primitive agricultural form.'

Ricardo's labour theory of value, from my viewpoint, contends not only that relative value of commodities are determined by necessary labour for production but also that wages are regulated by necessary labour for production of commodities necessary for a normal standard of living. (Ricardo identified 'labour' with 'other things' [commodities] in the *Principles*.) Moreover, Ricardo in fact supposed, as I interpret it, that the quantities of labour which determine values were socially necessary labour. Ricardo, at

least in the *Principles*, never considers that the level of wages is determined by only physical necessities. It is his idea that wages depend 'on food, necessities, and conveniences become essential to him from habit, which that money will purchase' (*Works* I, 93). Since 'habit' enters into the determination of real wages, the level of wages is regulated not only by physical necessities but also by social distribution, that is, by social judgment concerning how many parts of the gross revenue should be distributed to the labour class. I think that Ricardo's labour theory of value in the *Principles* unites two of their components, productivity and income distribution in the whole society. Ricardo must have considered that values of commodities and wages are regulated not only by technical conditions but also by social circumstance (civil and class relations, habit, and so on). If we ignore early Ricardo's analysis for the manufacturing sector, we lose his perception regarding the income distribution theory in the *Principles*. On the other hand, if we take Hollander's view that Ricardo retained throughout the inverse-relation between profits and money wages, we will lose the other side of Ricardo's labour theory of value as a theory of productivity.

Shigeyoshi Senga: Yokohama City University

Notes

- 1) This attempt has its origin in Professor Fukuta's paper on 'Early Ricardo Studies in Japan' which was read in the joint conference of the Japanese Society for the History of Economic Thought (JSJET) and the European Society for the History of Economic Thought (ESHET) held in Kyoto in March 2009. Being provoked by Fukuta's presenta-

tion, after the conference, Professor Kurz and Professor Watarai agreed to organize an international workshop on Ricardo's theory of profits, which was held in Tokyo in September 2009. This paper was read at the workshop with the papers by Professor Nakamura, Professor Mizuta, and Professor Kurz. I appreciate their participation in the workshop.

- 2) This subject is related to the problem of how to interpret Ricardo's letter to McCulloch of 13 June 1820. Some Sraffian studies have made much of this letter because Ricardo wrote that the laws of distribution 'are not essentially connected with the doctrine of value.' Hatori who studied the context of this letter in detail, however, demonstrated that Ricardo's intention in this letter was 'the questions of determining [that] the proportion of distribution are not essentially connected with the doctrine of value [in which there have been left an unsolved problem, that is, the problem of choosing the measure of absolute value]' (Hatori, 1982, 295. author's translation).
- 3) The introduction and the conclusion of this paper are rewritten bearing in mind Professor Kurz's paper, which was read in the international workshop on Ricardo's theory of profits in Tokyo. This part of the text, however, is translated from my original paper (1972), so that I did not refer to foreign studies on the profit theory of early Ricardo published since 1973. Here, I made a short survey of the foreign controversial studies which have developed between Hollander and Sraffians. Hollander's principal objection to Sraffians' interpretations is expressed in his recognition that Ricardo consistently grasped economic phenomena by the price mechanism of money terms but not of real (corn) terms which related directly to production and distribution. According to Hollander, Ricardo supposed the profit rate varied with money wage in general, but Sraffians interpreted Ricardo, at

least in the early stage and in agriculture, to mean that the profit rate was determined prior to pricing on the supposition of fixed corn wages. (Cf. Hollander 1995 which contains his 5 papers on this subject since 1973.) Eatwell (1975), Langer (1982), Garegnani (1983), Bharadwaj (1983, 1988), De Vivo (1985) and Prendergast (1986) defended Sraffa's interpretation against Hollander. Although some of them added new evidences to prove the corn-ratio theory, their common contention was that Sraffa's interpretation was based on the rational foundation of early Ricardo's profit theory. Porta (2001) analyzed Sraffa's Ricardo using Sraffa's unpublished manuscripts. Peach (1993), which contains his contention on this subject since 1984, criticized Sraffa's interpretation for the lack of textual evidence, but also objected to Hollander for his depreciating the agricultural model of early Ricardo. Kurz & Mongiovi (2002) argued against Peach and stood up for Sraffian interpretation. Caravale (1985), which edited 13 scholars' papers containing neoclassical and Sraffa-based interpretations. Rankin (1984) and Glyn (2006) looked for the logical ground of the controversy. Lapidus & Sigot (2001), reconsidering the 1970s controversies, concluded that different interpretations were legitimate and could not be indisputably settled. Although Hollander criticized Sraffians because they interpreted Ricardo not on the basis of evidences but on the basis of their preconceived notion (cf. Hollander, 1995, chapter 2, 3), it was clear that Hollander himself remained a neoclassical economist. When we study classical economists like Ricardo who left many statements on various cases, on the one hand we should reconstruct his thought using textual evidence as much as possible, on the other hand we must recognize that the ideology of readers inevitably colours their interpretations. The significance of the study of economic thought must be, rather, in

the originality of interpretation.

- 4) I am indebted to Nakamura (1968) for my interpretation concerning the difference between price and value in this letter.
- 5) We can say that Ricardo, in the period of bullion controversies, has in fact no framework for a whole nation, because he contended that gold moves freely across borders and the value of gold is the same all over the world. As you know, Ricardo abandoned this early position in the *Principles*. He contended that capital and labour could not easily move across borders and the values of gold as a result differed according to nation. In this paper, I have tried to demonstrate that the progression in Ricardo's theory of profits from his two-sector approach to value theory corresponds to the progress of his recognition that the market economy was organized above all as a national economy which is regulated by proper labour productivity and distribution.

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