

Takuya Hatori, Early Period Ricardo's Theories of Value and Distribution

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Introduction by Ken Mizuta and Shigeyoshi Senga

The text of which this is a translation is Chapter 4 of Takuya Hatori (1922–2012)'s *Kotenha Keizaigaku no Kihon Mondai* (*The Fundamental Question of Classical Economics*), Tokyo: Miraisha, 1972. It had originally been published as an article with the same Japanese title, but Hatori gave it the slightly different English title 'Ricardo's theory of value and distribution in his *Essay on Profits*' in Fukushima University's *Shōgaku Ronsyū* (*The Journal of Commerce, Economics and Economic History*), 34 (3), 91–151, 1965, and then added some revisions, in particular a 'total rewrite' of Section 5, when it was included in the book cited above. Before the publication of the article just noted, Hatori had presented a report entitled 'Early Ricardo's theories on distribution' at the 29th Annual Conference of the Japanese Society for the History of Economic Thought held in September 1965 at the Otaru University of Commerce, and according to the postscript of the original article 'in substance this included the content of this text up to Section 4.' Hatori states that he wrote the article after having given his presentation and considered the criticisms it elicited.

Hatori began his academic work in the field of Japanese economic history but later shifted his region of research to the broad range of economic thought, from figures such as John Locke and Jean-Jacques Rousseau in the era of the civil revolution to classical economists in the eighteenth and early nineteenth centuries. Above all, he devoted his energies to study of British classical economists like Adam Smith, Thomas Robert Malthus, and David Ricardo. Hatori particularly concentrated his efforts on the examination of Ricardo's economics.

As for the study of Ricardo's work in this field as a whole, various interpretations from Marxian, Neoclassical, and Sraffian viewpoints have been given, and as a result the study of Ricardo has been a kind of litmus test that reveals the interpreter's underlying perspective. Marxians regarded Ricardo as a rich source of Karl Marx's theories, such as, for example, the labour theory of value and the surplus value theory. Samuel Hollander and Michio Morishima studied Ricardo from a neoclassical perspective. For Sraffians, the corn-ratio theory, which was Piero Sraffa's interpretation of early Ricardo, was considered to be a miniature of Sraffa's *Production of Commodities by Means of Commodities*, published in 1960. As is well known, *The Works and Correspondence of David Ricardo*, 11 vols., Cambridge: Cambridge University Press, 1951–73, which was edited by Sraffa with the collaboration of M. H. Dobb, compiled new materials, added detailed bibliographic research, and became a fundamental text in modern Ricardo studies.

In Japan, in contrast to these studies overseas, the political economics of Marx had sway over the study of economic thought for a considerable period of time after World War II. Though Hatori's way of thinking had also stemmed from Marx, he originally advanced his studies in line with the ideas of Yoshihiko Uchida, a leading post-war figure in the academic sphere of the history of economic thought; According to Uchida, the classical economics was a basic science for understanding history and social systems. Hatori, however, came to study the theories of classical economics themselves, concentrating his energies on gaining insight into their candid content. He gradually moved away from conducting his work on the basis of any working hypothesis. This text demonstrates this tendency.

Hatori was the first scholar to reject Sraffa's 'corn-ratio theory,' which had until then been the main interpretation of the economic theory presented in Ricardo's early work. According to Sraffa's view, in agriculture the same commodity, namely corn, forms both input and output; so the agricultural rate of profit is determined directly by a comparison of quantities of corn without any question of valuation, and prices in other industries are adjusted so as to realise the same rate of profit as has been established in the agriculture. Hatori rejected this physical ratio theory, not only because Ricardo did not explicitly mention it, but also because corn was a measure of value in Ricardo's *An Essay on the Influence of a Low Price of Corn on the Profits of Stock* in 1815. This essay of Hatori's is perhaps most notable for offering a criticism of Sraffa's interpretation. It originally put forward in 1965, preceding Hollander's article critical of Sraffa, 'Ricardo's Analysis of the Profit Rate, 1813–15,' that was published in *Economica*, 40, 260–82, 1973. Most studies of Ricardo's early theories in both Japan and Western countries had followed Sraffa's interpretation before these works of

Hatori and Hollander were given.

In his study, Hatori did not adopt a working hypothesis such as the corn-ratio theory, but merely paid attention to what Ricardo himself stated. His inclination toward this stoic method of scholarship, in which he reasoned only on the basis of the available evidence, became even stronger thereafter. He aimed to study Ricardo himself without any backdrop of Marxian, Sraffian and Neoclassical economics.

Hatori continued his study of early Ricardo's theories and arrived at conclusions that have significantly contributed to the discourse in this field. Since Hatori's pioneering criticism, many Japanese studies of early Ricardian economics have been based on non-Sraffian interpretations. Hatori's own studies were then extended to Ricardo's *On the Principles of Political Economy, and Taxation*, and in 1982 he published another book, *Ricardo Kenkyū (Studies on Ricardo)*, Tokyo: Miraisha, in which he compiled his studies on Ricardo, discussing both his early theories and his theories in the *Principles*, and also examined an unpublished essay of Ricardo's entitled 'Absolute Value and Exchangeable Value.' This work represented the peak of Ricardo studies in Japan, equivalent to Hollander's publication of *The Economics of David Ricardo* in 1979 in the West.

Regarding these progress over time in Hatori's scholarship on the history of economic thought and its methodology, see Shigeyoshi Senga's 'Takuya Hatori on the Study of Classical Economics,' in *The History of Economic Thought* 57 (1): 1–24, 2015.

〈Explanatory Notes〉

1. Text in [] in Hatori's writing was inserted by the translators.

I Sraffa's Interpretation of Early Period Ricardo

As is widely known, confronted by the debate over the Corn Laws at the end of the Napoleonic Wars, Ricardo wrote and published *An Essay on the Influence of a Low Price of Corn on the Profits of Stock* (hereafter *Essay*) in February of 1815. In this pamphlet he criticised Malthus and laid out a perspective of comprehensive opposition to the policy of strengthening restrictions on the importation of corn, but in order to provide a theoretical foundation for this policy critique he devoted the first half of the work to a theoretical analysis of the relationship between capital accumulation and income distribution. Within the theory of distribution that emerges in this text, Ricardo also develops a theory of differential rent, presents the view that rent does not create new wealth but merely transfers existing wealth, and goes on to develop an argument for the as-

sertion that in a process of capital accumulation governed by the principle of free competition it is difficult to escape a tendency toward a general decline in rates of profit. With these points in mind, it can thus perhaps be said that this essay prefigures the content of the core theoretical elements of *On the Principles of Political Economy, and Taxation* (hereafter *Principles*), one of Ricardo's most important texts, and serves as a prototype for this later work first published in 1817.

But if we go a step beyond superficially observing the contents of these two works and noting their similarities, and attempt a comparison and examination that delves a bit further into the theoretical content itself, we notice not at all insignificant differences between the two texts, both regarding the theory of the essential regulation and creation/increase of rent and regarding the argument for the trend toward decreasing rates of profit. In this chapter I would like to conduct a modest investigation in order to clarify the particular characteristics of Ricardo's theory of distribution in the period before the writing of the *Principles*. Since in the history of the study of Ricardo's theories it was a work of Piero Sraffa's that first pointed out the existence of these sorts of issues, however, we will begin by presenting his interpretation of early period Ricardo.

The work in question was the editor's introduction to the first volume of *The Works and Correspondence of David Ricardo*,¹ which Sraffa edited in collaboration with Maurice Dobb, and in it he asserts there are two logically contradictory theories of distribution that simultaneously coexist and intermingle within the statements made in the *Essay*.

According to Sraffa, the first theory of distribution is as follows. What is given the role of "basic principle" in the argument for the trend toward decreasing rates of profit is the proposition that "it is the profits of the farmer that regulate the profits of all other trades,"² but "After the *Essay* this principle disappears from view, and is not to be found in the *Principles*."³

Sraffa then notes, "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 (conceived as composed of the subsistence necessary for workers) and the product; so that the determination of profit by the difference between total product and capital advanced, and also the determination of the ratio of this profit to the capital, is done directly between quantities of corn without any question of

1 *The Works and Correspondence of David Ricardo*, edited by P. Sraffa, with the collaboration of M. H. Dobb, 10 vols., 1951–1955. Hereafter referred to as "*Works*."

2 Letter of Ricardo to Trower, 8 March 1814, *Works*, VI, p. 104. Similar assertions can also be found in the *Essay*. Cf. Ricardo, the *Essay*, *Works*, IV, p. 13.

valuation.”⁴

In other words, according to Sraffa, the starting point of Ricardo's first distribution theory is to be found in the use of “corn-ratio theory” in order to separate the problem of distribution from theories of value. In his early period, Ricardo, in order to consider the problem of distribution in its simplest possible form, began by trying to view it in terms of agricultural profits. In agriculture, a single type of good, that is, corn, can be thought of as constituting both input and output. Ricardo was thus able to determine agricultural profits without giving any consideration to the problem of value by using the difference between input and output, both of which could be shown in terms of quantities of corn.

Having in this manner discovered a method of calculating agricultural rates of profit based on the “corn-ratio theory,” a method that takes a primitive real term approach to the problem of distribution, Ricardo then considered the question of how the accumulation of capital and increases in the population regulated movements in these rates. According to his view, accumulation and increases in population must necessarily, assuming a fixed level of agricultural technology, lead to increase the cultivation of inferior land, which will inevitably result in declining agricultural profits as calculated by the “corn-ratio theory.” This kind of argument, however, even if it succeeds in demonstrating a ten-

3 P. Sraffa, Introduction, *Works*, I, p. xxxi.

After adding his own detailed examination of early-period Ricardo's theory of distribution, Tucker comprehensively upholds this interpretation of Sraffa's. The gist of his argument is similar to Sraffa's, but since he adds a more thorough examination I include here a somewhat lengthy quote from his text. “[Early period] Ricardo believed that all changes in the rate of profit could be explained in terms of changes in the proportion of income or produce arising from (marginal) investment that was absorbed by the wages of labour. This proportion obviously depended in turn, first, on the amount of commodities paid as the wage of the labourer (this will be called the commodity-wage); and secondly, on the amount of commodities produced (at the margin) by the application of a given quantity of labour. . . . When the problem was conceived in ‘real’ terms it was not difficult to see that either of these factors would raise the proportionate share of wages and so reduce the rate of profit” (G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650–1850*, 1960, p. 98). Tucker also writes, “In the case of agriculture. . . . Conceived in physical terms, input (or corn-wages) could be considered homogeneous with output; and it was easy to show how the rate of profit would tend to fall as cultivation was extended to less fertile land, and increasing capital advances (measured in quarters of wheat) became necessary to secure successive equal increments in production. As Mr. Sraffa notes, this was the approach adopted by Ricardo in his *Essay on Profits* . . . until he had elaborated his theory of value, he was not able to give a satisfactory explanation of changes in agricultural profits except in terms of his simplified theory which reduced the whole problem to a comparison of quantities of corn” (ibid., pp. 99–100).

4 See footnote 3 above.

dency toward a decline in agricultural rates of profit, cannot be directly applied to prove the same result regarding commercial and manufacturing rates of profit; since in the case of commerce and manufacturing input and output are not formed by the same type of goods, it is not possible to calculate commercial and manufacturing profits through a real term approach. According to Sraffa, it is precisely in order to bridge this logical gap that Ricardo makes the assertion, "it is the profits of the farmer which regulate the profits of all other trades." In other words, rates of profit in all areas of production within a society tend to be averaged out. And if agricultural profit rates decline because of increasing cultivation of the inferior land, this will cause influxes and effluxes of capital in various industrial sectors, and the end result will be an inevitable reduction in commercial and industrial rates of profit to the level of agricultural profit rates.

In Sraffa's view, the first theory of distribution put forward by early-period Ricardo contained the content described above. He then took the "corn-ratio theory" as a theoretical starting point, and developed his approach around the core idea that "it is the profits of the farmer that regulate the profits of all other trades."⁵

Sraffa then writes, "Parallel with this ran another theme in the development of Ricardo's thought."⁶ Namely, in the account given in the *Essay*, " . . . in connection with this question, there are passages which foreshadow his full theory of value and already link it with the theory of profits,"⁷ and it is here that the second distribution theory, different from the one described above, is to be found. Here Sraffa asserts that Ricardo presents a perspective in which the ultimate foundation of exchange value is sought in the amount of labour bestowed, and, based on this approach, infers that increases in accumulation and population lead to the development of inferior land cultivation, but since this results in

5 Cf. Sraffa, Introduction, *Works*, I, pp. xxxi–xxxiii.

Regarding this point, too, Tucker's explanation is clearer than Sraffa's. Tucker writes, "When, as in the *Essay on Profits*, the investigation of the effect of diminishing returns in agriculture was conducted in physical terms, each labourer was assumed to receive a wage consisting of a given quantity of corn, and the decline of the rate of profit was attributed directly to the lower physical productivity of newly-employed (or marginal) labourers. Equal additions to the amount of labour applied in agriculture yielded diminishing returns in output, so causing a rise in the proportionate share of wages in the produce of (marginal) investment. . . . This accounted for the fall of agricultural profits, but not manufacturing profits. When the problem was conceived in 'real' terms, it was necessary to assume that the rate of profit in all other sectors of activity was regulated by the rate of profit in agriculture." (G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650–1850*, 1960, pp. 103–04, 104 footnote)

6 Sraffa, Introduction. *Works*, I, p. xxxiii.

an increase in the amount of labour needed for corn production, the price of corn rises, and as a result wage rates cannot help but increase, inevitably leading to a general downward trend in rates of profit.

According to Sraffa, the fact that the perspective of the classical labour theory of value was thus clearly hammered out in the *Essay* is worthy of special mention in regard to the process of the formation of early-period Ricardo's theory of distribution. This is because, at least until July of 1814, Ricardo "had subscribed to the generally accepted view that a rise in corn prices, through its effect upon wages, would be followed by a rise of all other prices,"⁸ and to the

7 G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650–1850*, 1960, p. xxxiii.

8 G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650–1850*, p. xxxiii. As evidence supporting the assertion that Ricardo retained this old view originating in Smith—the view that a rise in corn prices will lead to a rise in the standard price of goods in general—until July of 1814, Sraffa offers two letters from Ricardo to Malthus dated June 26th and July 25th, 1814 (cf. *Works*, VI, p. 108, pp. 114–15). In another letter to Malthus dated August 11th, 1814, however, Ricardo also develops an argument involving the "increased value to which all goods would rise in consequence of the rise of the wages of labour," so it is safe to say that at this point he still had not discarded the view described above (cf. *ibid.*, pp. 119–20). The fact that this old view can be found in this letter dated August 11th is also acknowledged by Tucker (cf. Tucker, *op. cit.*, p. 99).

If as this indicates Ricardo accepted the proposition that a rise in corn prices will lead to a rise in the general price level until at least August of 1814, how was he able to criticise restrictions on the importation of corn? Restrictions on the importation of corn would be certain to artificially jack up corn prices. But if a rise in corn prices would increase not only wage rates but also the general price level, then no judgment could be made about the effect on general rates of profit. It is quite difficult to faithfully trace and put in order the arguments regarding this issue developed by Ricardo in his letters to Malthus. Sraffa did not provide any explanation addressing this topic, but as I find Tucker's recent observations on this point adroitly made and worthy of careful attention I will quote him directly. "In the latter part of the year 1814, in the course of discussions with Malthus concerning the effects of restrictions on the importation of corn, Ricardo accepted the idea that a rise in the price of corn would lead to a general rise in the prices of all other commodities. For if the price of corn rose, the money-wage of labour would be affected; and if the manufacturer with a given capital was forced to pay higher wages, he would not be able to produce as great an output as before. Manufacturers would become more scarce and their prices would tend to rise. But Ricardo argued that prices would not rise sufficiently to compensate the manufacturer in full for the increase of wages; therefore his rate of profit would fall. This conclusion depended on the view that if production declined, the demand for commodities would be reduced in roughly the same proportion as the supply; that unless people were prepared to live beyond their incomes, they would not be able to pay the higher prices that would be necessary to allow manufacturers the same rate of profit" (G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650–1850*, pp. 98–99).

extent that he subscribed to this view it was impossible for him to clearly grasp the oppositional relationship between wages and profits.⁹ So to Sraffa, pre-*Essay* Ricardo was unable to present the logic of this second distribution theory when demonstrating the downward trend in the rate of profits, and therefore had no choice but to take the following approach: after calculating agricultural profits using the “corn-ratio theory” and demonstrating a reduction in the rate of agricultural profits caused by inferior land cultivation, he came up with the proposition that “the rate of agricultural profits regulate the rate of profits in general,” and, relying on this proposition, then went on to demonstrate a downward trend in general rates of profit. Taking this view, in Sraffa's opinion Ricardo had developed only his first theory of distribution before writing the *Essay*, having only just begun to construct the second theory of distribution when he wrote this text, and as a result, both theories coexist and intermingle in this pamphlet. Since the second theory was still immature and not fully put together, however, what occupied a dominant position here was the first theory of distribution to which he had subscribed up until that point. Of course, by the publication of the *Principles* in 1817, Ricardo's approach to distribution had become grounded in his second theory of distribution outlined above, and his first theory of distribution, in contrast, had completely disappeared, so Sraffa sees this argument presented in the *Essay* as a product of the transitional period or “shedding of the skin” from the old theory of 1814 to the *Principles* of 1817.¹⁰

While there have been disagreements over minor details, the main thrust of Sraffa's original interpretation of early-period Ricardo's theory of distribution, outlined above, has been broadly supported by the vast majority of Ricardo scholars since it was first put forward. Figures such as Meek, Tucker, Gillman, and Blaug can be counted among them, and in Japan, too, one can point to scholars such as Fukashi Tokinaga, Kazuo Mazane, Kōzō Matsuda, Torao Hayashi, and Hiroji Nakamura.¹¹ As a result, today the views put forward by Sraffa can perhaps be seen as having attained the position of established orthodoxy.

9 Sraffa, Introduction, *Works*, I, p. xxxiii.

Tucker asserts that Ricardo began attempting to construct a theory of distribution on the foundation of the labour theory of value at the end of 1814. “At the end of 1814 the idea that value depends simply on the relative ‘facility of making’ a commodity, or the quantity of labour required for its production, seems to have clarified or hardened in his mind.” (G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650–1850*, 1960, p. 99). Tucker's evidence for this claim is letters from Ricardo to Malthus dated December 18th, 1814 and January 13th, 1815 (cf. *Works*, VI, p. 163, pp. 170–71).

II Examining on Sraffa's View: The Corn-ratio Theory

Concerning Sraffa's view stated above, what I have questions about, first of all, is the assertion that early-period Ricardo's distribution theory was developed using the "corn-ratio theory," a method that takes a primitive real term approach. In this section, I will examine this theory, and along with laying out my questions about Sraffa's argument also propose my own alternative interpretation.

Sraffa's proof about the point that early-period Ricardo employed "corn-ratio theory," completely unrelated to the labour theory of value, in his theory of distribution is as follows.

"Although this argument [corn-ratio theory] is never stated by Ricardo in any of his extant letters and papers, he must have formulated it either in his lost 'papers on the profits of Capital' of March 1814 or in conversation, since Mal-

10 Sraffa, Introduction, *Works*, I, pp. xxxi–xxxiv.

According to Sraffa this first theory of distribution completely disappears in the *Principles* (1817), but does make a temporary reappearance during a later period in Ricardo's life. Sraffa writes, "Many years later, an echo of the old corn-ratio theory (which rendered distribution independent of value) can perhaps be recognised when Ricardo in a moment of discouragement with the difficulties of value theory writes to McCulloch: 'After all, the great questions of Rent, Wages, and Profits must be explained by the proportions in which the whole produce is divided between landlords, capitalists, and labourers, and which are not essentially connected with the doctrine of value.'" (*Works*, I, p. xxxiii.)

Throughout the study of Ricardo's thought, his letter to McCulloch, dated June 13th, 1820, has been one of the documents that has caused the most consternation among scholars, but Sraffa attempts to account for it as a "temporary deviation," stating in another passage, "At one moment between edition 2 and edition 3 Ricardo did show signs of weakening." (*ibid.*, p. xxxix.) In other words, while since J. H. Hollander and Cannon this letter to McCulloch has been cited as evidence that Ricardo pushed the labour theory of value perspective into further and further retreat from the first publication of the *Principles* onward, Sraffa attempts to deal with this letter as nothing more than a "temporary deviation." Meek and Tokinaga can be cited as scholars that have agreed with this view of Sraffa's. (cf. R. L. Meek, *Studies in the Labour Theory of Value*, 1956, p. 106. F. Tokinaga, Rikaadō Keizaigaku no Seisei to Kachiron wo meguru Shomondai [The Formation of Ricardo's Economics and Problems Surrounding Theories of Value] (*Keizai Shirin*, Vol. 20, No. 4, p. 105).

Regarding the content of this letter to McCulloch, while I cannot endorse the old view that has been considered established wisdom since J. H. Hollander, neither can I agree with Sraffa's new theory. Since I have already given a detailed account of my views on this elsewhere I will not repeat them here (see my *Kotenha Shihonchikusekiron no Kenkyū* [Studies in the Classical Theory of the Accumulation of Capital], Chapter 2, Section 1, footnote 7, pp. 71–72.)

thus opposes him in the following terms which are no doubt an echo of Ricardo's own formulation: '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. . . . It is not the particular profits or rate of produce upon the land which determines the general profits of stock and the interest of money.'¹² The nearest that Ricardo comes to an explicit statement on these lines is in a striking passage in a letter of June 1814: 'The rate of profits and of interest must depend on the proportion of production to the consumption necessary to such production.'¹³ The numerical examples in the *Essay* reflect this 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."¹⁴

Among the documents cited by Sraffa as his basis for asserting that early-period Ricardo employed the "corn-ratio theory," perhaps the most important is a letter from Malthus dated August 5th, 1814. Looking at the passage from this letter quoted above, it does indeed seem that Ricardo was utilising the "corn-ratio theory," and that Malthus was opposed to this approach. Sraffa's position seems all the more plausible given the fact that, according to him, in an-

11 Cf. R. L. Meek, *Studies in the Labour Theory of Value*, 1956, pp. 86–95; G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650–1850*, 1960, pp. 98–104; J. M. Gillman, Ricardo's Development as an Economist, *Science and Society*, 1956, pp. 211–22; M. Blaug, *Ricardian Economics*, 1958, pp. 10–11; F. Tokinaga, Rikaadō Keizaigaku no Seisei to Rōdōkachiron to no Kanren [The Formation of Ricardo's Economics and its Relationship to the Labour Theory of Value], *Keizai Shirin*, Vol. 23, No. 2, pp. 12–25; F. Tokinaga, Rikaadō Keizaigaku no Seisei to Rōdōkachiron to no Kanren [The Formation of Ricardo's "Principles" and its Relationship to the Labour Theory of Value], *Keizai Shirin*, Vol. 23, No. 3, pp. 1–11; K. Mazane, Rikaadō "Keizaigaku oyobi Kazei no Genri" [Ricardo's *On the Principles of Political Economy, and Taxation*], Uchida Yoshihiko et al., eds., *Keizaigakushi Kōza* [Economic History Course], Vol. 1, pp. 219–21; Kōzō Matsuda, *Kagakuteki Keizaigaku no Seiritsukatei* [The Formation Process of Scientific Economics], pp. 159–69; Torao Hayashi, Rikaadō Keizaigaku tokuni Shihonchikusekiron no Keiseikatei ni okeru Mondaiten nitsuite [On Problems in Ricardo's Economics, Particularly in the Process of Formation of his Theory of Capital Accumulation], *Shimonoseki Shōkei Ronshū* [The Shimonoseki Economic Review], Vol. 8, Combined issue of Nos. 1 and 2, p. 24; H. Nakamura, Rikaadō "Rijunron" no Ichikōsatsu [A Consideration of Ricardo's "Essay on Profits"], *Oita Daigaku Keizai Ronshū* [Oita University Economic Review], Vol. 17, No. 1, pp. 11–23.

12 Letter of T. R. Malthus to Ricardo, August 5th, 1814, *Works*, VI, pp. 117–18.

13 Letter of Ricardo to Malthus, June 26th, 1814, *Works*, VI, p. 108.

14 Sraffa, Introduction, *Works*, I, pp. xxxi–xxxii.

Regarding this point, those who have agreed with Sraffa's view, including Meek and Tucker, have not presented any other source materials beyond what Sraffa supplies here. See the relevant pages in their articles cited in the previous section's footnote 11.

other letter Malthus points out Ricardo's error in calculating agricultural capital in terms of quarters of corn.¹⁵ Nevertheless, however, I do not believe Sraffa's argument described above can be described as sufficiently persuasive. The reason for this is that the documents he presents as the most important pieces of evidence for his claims are both letters written by Malthus, and therefore cannot demonstrate anything more than Malthus' contemporary interpretation of Ricardo. As a result there is still room for a critique of this evidence concerning whether or not Malthus accurately understood Ricardo's true intentions at the time.

In addition, as Sraffa himself acknowledged, among all of Ricardo's own writings that still exist there is no explicit statement of the "corn-ratio theory." Even though all of the letters from Ricardo to Malthus from the period surrounding the latter's letter of August 5th, 1814 still exist, in none of them can an explicit development of the "corn-ratio theory" by Ricardo himself be found. In the passage quoted above Sraffa asserts that "the nearest that Ricardo comes to an explicit statement on these lines [a statement of the "corn-ratio theory"] is in a striking passage in a letter of June 1814," but surely it is hasty to draw this kind of conclusion based only on the abstract expression that rates of profit depend on the ratio of products to consumption necessary for its production. If we take this view, then since there is no explicit statement of the "corn-ratio theory" in the writings of Ricardo himself, it is possible for us to invert Sraffa's interpretation and instead conclude that Malthus has misunderstood Ricardo in the letter in question. If this is the case then Sraffa's argument collapses from its foundations.

That being said, however, here I am not trying to oppose Sraffa's interpretation or actively endorse the alternative; since at this point in time Ricardo's *papers on the profits of Capital*, a series of notes written in March, 1814, remain lost, we should refrain from making any hasty judgments regarding whether or not Ricardo employed the "corn-ratio theory" during this period.

While for the reasons given above I do not think there can be any definitive answer to the question of whether Ricardo relied on the "corn-ratio theory" in his approach to the problem of distribution during the period before February of 1815, I have reasons for rejecting Sraffa's assertion that he continued to employ this theory even after reaching the view expressed in the *Essay on Profits*. According to Sraffa, the "reflection" of an approach relying on the "corn-ratio theory" can be seen in the fact that in the numerical examples and well-known

15 Cf. *Works*, I, p. xxxii, footnote 4. Regarding the content of other letters by Malthus being addressed here, see letters from Malthus to Ricardo, 12th and 14th March, 1815, *Works*, VI, pp. 185–87.

charts Ricardo includes in the *Essay*, capital and “net produce” are both displayed in terms of quarters of corn, and rates of profit are also calculated on this basis. But is this claim tenable?

To begin with, let us look at the first numerical example that emerges from the account given in the *Essay*. Ricardo writes: “In the first settling of a country rich in fertile land, and which may be had by anyone who chooses to take it, the whole produce, after deducting the outgoings belonging to cultivation, will be the profits of capital, and will belong to the owner of such capital, without any deduction whatever for rent. Thus, if the capital employed by an individual on such land were of the value of two hundred quarters of wheat, of which half consisted of fixed capital, such as buildings, implements, etc. and the other half of circulating capital, —if, after replacing the fixed and circulating capital, the value of the remaining produce were one hundred quarters of wheat, or of equal value with one hundred quarters of wheat, the neat profit to the owner of capital would be fifty per cent or one hundred profit on two hundred capital.”¹⁶

Here, as Sraffa asserts, both capital and “net product” are stated in terms of quarters of corn, and rates of profit are indeed calculated on this basis. This need not be seen, however, as a “reflection” of Ricardo’s having employed the “corn-ratio theory.” Two reasons for this can be given straight away.

First, Ricardo explicitly states that agricultural capital is made up not only of circulating capital but also fixed capital, such as buildings and agricultural implements. When he presented agricultural capital in quarters of wheat in this text, he did not suppose that all agricultural capital is made up of wage goods. He recognised that agricultural capital included capital goods with physical forms other than corn. Having acknowledged this, he then went ahead and presented agricultural capital as quarters of wheat. If so, this would seem to indicate that Ricardo did not apply a primitive real term approach to the problem of distribution.

Second, expressions such as “if the capital employed by an individual on such land were of *the value* of two hundred quarters of wheat. . .” and “if, after replacing the fixed and circulating capital, *the value of the remaining produce* were one hundred quarters of wheat, or *of equal value with one hundred quarters of wheat*” are used in the passage quoted above. Does this not show that in calculating rates of profit Ricardo tried to understand capital or “net product” more than anything else *as an amount of value*? And in this case, even if he presented them as quarters of corn, it does not show that he was attempting to address the problem in terms of material amounts, but rather instead indicates that

16 *Essay*, *Works*, IV, p. 10.

he tried to approach it strictly in terms of value? If this were not the case, then surely he would not have gone to the trouble of using such cumbersome phrases as “*of equal value with one hundred quarters of wheat.*”

But if Ricardo tried to approach the problem in value term rather than material term, from what sort of perspective did he attempt to understand value? In the *Essay* Ricardo displays a labour theory of value perspective, albeit a simple, unsophisticated one, and does not develop any other theory of value. As Sraffa correctly pointed out, the perspective that the ultimate foundation of exchange value is the amount of labour bestowed was clearly worked out in the *Essay*, although in a simplified form. Moreover, as was noted above, while until at least August of 1814 Ricardo had not harbored any doubts about the notion, established wisdom since Adam Smith, that “the price of corn [by exerting an influence on wage rates] regulates the price of all other goods,” in the *Essay* he explicitly rejects¹⁷ this view, and therefore the perspective in which the origin of exchange value is sought in the amount of labour bestowed he presents in this text, while it may not have been expressed in straightforward terms, can nevertheless be seen as having been quite firmly established.

In his *Essay*, Ricardo thus tried to approach the problem of distribution not in terms of material amounts but rather in terms of value, and this being the case, since he presented a perspective to succeed Smith’s labour theory of value, he should be seen as not having employed the “corn-ratio theory” at all in this pamphlet. If so, however, then why did Ricardo present all calculations of rates of profit in quarters of wheat, even though he was starting from a perspective that viewed the amount of labour bestowed as the origin of value? If it was not because of the “corn-ratio theory,” then once again this question must be considered problematic. To give my own thoughts on the matter, my answer is that in the *Essay* quarters of wheat are used as a measure of value. This is the reason that everything is given in quarters of wheat. If so, then why did Ricardo choose wheat as his measure of value? Let us take a moment to examine this question.

It seems that when Ricardo wrote the *Essay* he may have been thinking as follows. To consider the problem of distribution it is necessary to take as the object of consideration the prices and values of various commodities, but in that case it is necessary to sharply distinguish between fluctuations in price caused by changes in the circumstances of production of individual products and fluctuations in price caused by changes in the value of money; in order to understand the problem of distribution in its purest form, we must abstract the changes caused by the latter, which requires us to posit the value of one commodity

17 Cf. *Essay*, *Works*, IV, p. 21 footnote.

as invariable and employ it as our measure of value.¹⁸

If so, however, why did Ricardo choose wheat rather than any other commodity to be his measure of value in the *Essay*? Here it is important to note that he did not believe that wheat was truly a commodity with a fixed, invariable value. At the time of writing the *Essay* Ricardo already knew that wheat was in fact a commodity whose value could change. To begin with, in the *Essay* it is clearly stated that the price of wheat can rise alongside increasing production difficulties as a result of the development of inferior land cultivation.¹⁹ But that is not all. Here Ricardo even emphasises that the value of wheat can fluctuate in accordance with changes in the status of demand and supply for this commodity. He writes, "Though the price of all commodities is ultimately regulated by, and is always tending to, the cost of their production, including the general profits of stock, they are all subject, and perhaps corn more than most others, to an accidental price, proceeding from temporary causes."²⁰

He plainly acknowledges that the value of corn is eminently variable, and as a result it is not at all suitable for use as a measure of value. But he uses it as his measure of value nonetheless. He does not address this himself anywhere in the *Essay*, but I think it is valid to speculate that he used corn as his measure of value because at the time he was conceiving and writing this *Essay*, while he had already solidified his perspective in which the ultimate foundation of exchange value is to be sought in the amount of labour bestowed, he had not yet overcome Smith's so-called "labour commanded is the measure of value" theory. The reason for this was as follows.

As was discussed in detail in Section 2 of Chapter 1 of this book,²¹ Smith writes, "The value of any commodity, . . . is equal to the quantity of labour which it enables him to purchase or command. Labour, therefore, is the real measure of the exchangeable value of all commodities."²² Here he claims that

18 It is by no means easy to find passages in which Ricardo explicitly writes about what is discussed here in the text of the *Essay*. But the following quotation, for example, suggests at least to a certain extent that at this point his way of thinking was as I have described it. "It has been thought that the price of corn regulates the prices of all other things. This appears to me to be a mistake. If the price of corn is affected by the rise or fall of the value of the precious metals themselves, then indeed will the price of commodities be also affected, but they vary, because the value of money varies, not because the value of corn is altered. Commodities, I think, *cannot materially rise or fall*, whilst money and commodities continue in the same proportions, *or rather whilst the cost of production of both estimated in corn continues the same*." (*Essay*, Works IV, p. 21 footnote. Emphasis added).

19 Cf. *Essay*, Works IV, p. 19.

20 *Essay*, Works IV, p. 20 footnote.

21 Hatori, T., 1972. *Kotenha Keizaigakun no Kihon Mondai* [*The Fundamental Question of Classical Economics*], Tokyo: Miraisha.

the real measure of the value of commodities is the amount of labour they command, and then goes on to explain why this is the case. "Equal quantities of labour, at all times and places, may be said to be of equal value to the labourer. In his ordinary state of health, strength and spirits; in the ordinary degree of his skill and dexterity, he must always lay down the same portion of his ease, his liberty, and his happiness. . . . Labour alone, therefore, never varying in its own value, is alone the ultimate and real standard by which the value of all commodities can at all times and places be estimated and compared."²³

The proposition that the amount of labour commanded was the true measure of value was thus established, but Smith believed that when engaging in such studies "it may sometimes be of use to compare the different real values of a particular commodity at different times and places," and that in such cases we cannot help falling back on the expediency of using corn as a measure of value. "We must in this case compare, not so much the different quantities of silver for which it was commonly sold, as the different quantities of labour which those different quantities of silver could have purchased. But the current prices of labour at distant times and places can scarce ever be known with any degree of exactness. Those of corn . . . are in general better known. . . . We must generally, therefore, content ourselves with them, not as being always exactly in the same proportion as the current prices of labour, but as being the nearest approximation which can commonly be had to that proportion."²⁴

If so, then why did Smith in this case believe corn was the commodity closest to having an invariable value? Smith's explanation regarding this point was as follows. "Equal quantities of labour will at distant times be purchased more nearly with equal quantities of corn, the subsistence of the labourer, than with equal quantities of gold and silver, or perhaps of any other commodity. Equal quantities of corn, therefore, will, at distant times, be more nearly of the same real value, or enable the possessor to purchase or command more nearly the same quantity of the labour of other people. They will do this, I say, more nearly than equal quantities of almost any other commodity; . . ."²⁵

So according to Smith, if we look at relatively short-term comparisons, such as comparing one year to another, the fluctuations in the price of corn are

22 A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. by E. Cannon, 6th ed., I, p. 32.

23 A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. by E. Cannon, 6th ed., I, p. 35.

24 A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. by E. Cannon, 6th ed., I, p. 40.

25 A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. by E. Cannon, 6th ed., I, p. 37.

so marked there is no way these prices can be used as a measure of value, but when it comes to questions of long-term comparisons, such as from one century to another, the use of corn as the measure of value should be permitted as an expediency because corn comes closer than any other commodity to maintaining the same real value over such durations.

Looking back over arguments surrounding the concrete application of Smith's "labour commanded is the measure of value" view, it seems that at the time of writing the *Essay* Ricardo may have been relying on Smith's argument presented above. The aim of his inquiry in the *Essay* was to clarify long-term trends in the effects of capital accumulation on various forms of income, and when it came to thinking about this kind of assigned problem, it would presumably have been quite easy for Ricardo to think the use of corn as a measure of value should be permitted as an expedience. If there is nothing to prevent us from taking this view, then it can presumably be said that by that point in time Ricardo had taken up the labour theory of value particular to the classical school founded by Smith, and had adopted not only Smith's view that "labour bestowed is the origin of wealth" but also that "labour commanded is the measure of value."

In this way the employment of corn as a measure of value in the *Essay* perhaps signifies Ricardo's uncritical acceptance of Smith's "labour commanded is the measure of value" view during this period. Believing this is the case, however, requires us to reexamine the significance of Ricardo's subsequent critical consideration of this view of Smith's right from the start of his discussion of theories of value in the first chapter of the first edition of the *Principles*. The study of theories of value into which Ricardo threw himself after the publication of the *Essay* can perhaps be described as the process of clarifying the muddiness of Smith's theory of value, but let us reexamine this topic in the final section of this chapter.

III Issues Concerning Theories of Declining Rates of Profit

As we saw in Section II, Ricardo did not use the "corn-ratio theory," an approach completely unrelated to the labour theory of value, in thinking about the problem of distribution in his *Essay*, but on the contrary directly adopted the classical labour theory of value. And since he had uncritically accepted not only Smith's labour bestowed is the origin of value theory but also his view that labour commanded is the measure of value, he therefore accepted corn as the measure of value. But choosing wheat as a measure of value presumably causes some inconvenience in the analysis of the problem of distribution from the perspective of the labour theory of value. This is the case because when you argue

from the perspective of the view that labour bestowed is the origin of value, if the level of agricultural technology is fixed, then even though the value of corn must be seen as something that rises along with the development of the cultivation of inferior land, if wheat is chosen as the measure of value, then the value of corn must be assumed to be always invariable. If so, then in Ricardo's theory of distribution developed in the *Essay*, what sort of difficulties arose in his reasoning as stated above? Let us examine this question.

Following the numerical examples quoted in Section II, Ricardo writes as follows in the *Essay*. "After all the fertile land in the immediate neighbourhood of the first settlers were cultivated, if capital and population increased, more food would be required, and it could only be procured from land not so advantageously situated. Supposing then the land to be equally fertile, the necessity of employing more labourers, horses, etc. to carry the produce from the place where it was grown, to the place where it was to be consumed, although no alteration were to take place in the wages of labour, would make it necessary that more capital should be permanently employed to obtain the same produce. Suppose this addition to be of the value of ten quarters of wheat, the whole capital employed on the new land would be two hundred and ten, to obtain the same return as on the old; and, consequently the profits of stock would fall from fifty to forty-three per cent. or ninety on two hundred and ten."²⁶

Ricardo thus asserted that the cultivation of inferior land will progress in accordance with increases in capital and population, and as a result, the rate of agricultural profit in the newly cultivated inferior land will decline. It goes without saying that in this case he employs corn as the measure of value, through it calculates agricultural capital or "net product," and then on the basis of this calculation goes on to calculate the rate of agricultural profits. Since corn has been chosen as the measure of value, throughout this argument of Ricardo's the value of corn is naturally assumed to always remain fixed and invariable. After having completed his demonstration of the downward trend in agricultural profits using these numerical examples, Ricardo in fact declares this to the reader as follows.

"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."²⁷

Before beginning his account with numerical examples, the assumptions

²⁶ *Essay, Works*, IV, p. 13.

²⁷ *Essay, Works*, IV, p. 18.

Ricardo gives the reader are that the level of agricultural technology is fixed, the speeds at which capital and population are increasing are correspondingly proportional to each other, and that real wages are invariable.²⁸ But in addition to these explicit assumptions made at the start, it is clear from the passage quoted above that the assumption that the value of corn is fixed was also tacitly being made in the course of this example. The point he was trying to make with this numerical example is that the development of the cultivation of inferior land brings about a decline in agricultural rates of profit. And for the purposes of this demonstration he assumes that the value of corn is invariable. Moreover, since it was also assumed that real wages (to Ricardo a term synonymous with corn wages) are fixed, under circumstances in which the value of corn is fixed the money wage rate is of course also invariable.

If so, however, for what reason can Ricardo assert that agricultural profit rates will decline under the cultivation of inferior land? His claim, as shown in the passage quoted above, is that rates of profit decline because since a greater number of labourers, horses, and so on is required in order to obtain the same harvest (net product) from inferior land that has been newly brought under cultivation as is obtained from superior land that is already being cultivated, the total value of these necessary capital goods, measured in quarters of wheat, will increase. By saying this, Ricardo, who had asserted that the net product of inferior land will be less than that of superior land, is following this up with the claim that, since two agricultural rates of profit cannot exist at once, the profits obtained by those who cultivate superior land must be regulated by the profits of those who cultivate inferior land, and, as a result, agricultural profit rates will be lower than before, and the extra net product obtained by those who cultivate superior land will belong to the owners of this land as rent.²⁹

What must be addressed as problematic in these assertions of Ricardo's, more than anything else, is his claim that since obtaining the same harvest (net product) from inferior land as is obtained from superior land requires more labourers, horses, and so on, the value of necessary capital goods, measured in quarters of wheat, will increase. Of course, just as he says the physical amount of necessary capital goods will be greater in the case of inferior land than in that of superior land. But if the total value of this greater amount of necessary capital goods is calculated in terms of quarters of wheat, the *wheat value* of the necessary capital goods for inferior land will not necessarily be greater than that for the superior land that had been cultivated in the past.

If the capital goods needed for the cultivation of land were thought of as

28 Cf. *Essay, Works*, IV, p. 12.

29 Cf. *Essay, Works*, IV, p. 13

being comprised entirely of corn, then the wheat value of necessary capital goods for the cultivation of inferior land would indeed increase. As our consideration thus far has clearly shown, however, Ricardo did not believe this was the case. He recognised that agricultural capital was composed not only of raw produce beginning with corn, but also of products of the manufacturing industry such as farm implements.³⁰ But if we take this point into account, we can no longer say that the wheat value of the capital goods necessary for the cultivation of inferior land will necessarily increase. This is the case because in this argument of Ricardo's it is only the worsening of corn production circumstances in inferior land cultivation that is being addressed, and in this instance it is assumed that there will be no changes in the production circumstances of manufacturers. If it is assumed that the production circumstances of manufacturers are invariable, and that it is only the production circumstances of farmers that will become more difficult, then of course the value of capital goods such as buildings and farm implements must be viewed as destined to decline in comparison to the value of corn. In inferior land newly brought under cultivation, the amount of capital goods needed for cultivation will indeed be greater than that required in the superior land that had been cultivated in the past, but if the value of this increased amount of necessary capital goods is measured in wheat, then it is not clear whether or not the value of capital goods necessary for the cultivation of inferior land will increase. This is the case because, as we have just seen, as a result of production circumstances of wheat alone worsening through the cultivation of inferior land, the *wheat value* of what comprises at least some of the capital goods that make up agricultural capital will go down. But in the *Essay* Ricardo arbitrarily assumed that production costs measured in wheat will inevitably rise in inferior land, and attempted to demonstrate that the rate of agricultural profits will decline through numerical examples created on the basis of this arbitrary assumption. This line of reasoning that chooses wheat as the measure of value and attempts to use it to show that the rate of agricultural profits will decline, for the reason stated above, includes elements that conflict with the perspective that the amount of labour bestowed is the origin of value which Ricardo himself had positioned as his starting point.

Even though, as we have just seen, this demonstration contains reasoning that contradicts the position that labour bestowed is the origin of value and leaps of logic based on arbitrary assertions, Ricardo himself claimed that this numerical example proved that the development of cultivation of inferior land would lead to a decline in rates of agricultural profits. But what he ultimately must prove in the *Essay* is not only that agricultural profits will decline, but that

30 See footnote 5 in Section II.

there will be a downward trend in rates of profit in general. Even if Ricardo can claim that the accumulation of capital and increases in the population will cause the development of the cultivation of inferior land, and that this in turn will bring about a decline in rates of agricultural profits, this alone would be only a partial achievement of his aims. So how did he go about trying to prove a downward trend in rates of profit in general?

Here Ricardo faced a difficult problem. As we have noted, he chose wheat as his measure of value in measuring the rates of agricultural profits. His analysis was also carried out with the assumption of fixed real wages. As a result, without ever making it explicit, he proceeds with his analysis based on the assumption that both the price of corn and money wages are invariable. And as was just noted, the logic by which the decline in rates of agricultural profits was asserted within his own process of reasoning was flawed. Nevertheless, however, assuming that corn prices and money wages are fixed does not necessarily lead to a decline in rates of commercial and manufacturing profits; since he assumed that the process of capital accumulation leads to worsening agricultural production circumstances, it was easy for Ricardo himself to commit logical errors in the case of agriculture, but because he did not assume worsening production circumstances regarding commerce and manufacturing it was unmistakably clear that he could not claim commercial and manufacturing profits would decline on the basis of the assumption of fixed wage rates.

This being the case, it is not possible to prove a downward trend in the rates of commercial and industrial profits themselves if assuming that the price of corn and wage rates are invariable. What emerges here is the proposition, discussed above, that "it is the profits of the farmer which regulate the profits of all other trades." In other words, the rates of profit in various industries tend to average out within a society. If we assume that agricultural profits will fall because of the development of the cultivation of inferior land that goes hand in hand with the accumulation of capital, this will in turn instigate a flow of capital into and out of various industries, with the result being that the rates of commercial and manufacturing profits too will ultimately fall until they reach the same level as the rates of agricultural profits.³¹ The proposition given above is thus an essential principle for the argument for the trend toward declining agricultural rates of profit in the *Essay*, and can be characterised as an element that clearly illustrates the uniqueness of the content of this argument. As a result, the content of this argument completely disappears in the *Principles*, and the argument for a downward trend in rates of profit in this text is conducted using a completely different logic from that employed in the *Essay*.³²

31 Cf. *Essay*, *Works*, IV, pp. 12–14.

Even in the *Principles*, the ultimate cause of the downward trend in rates

- 32 St. Clair does not see the proposition “it is the profits of the farmer which regulate the profits of all other trades” as belonging exclusively to early-period Ricardo’s theory of distribution, and views the way of thinking this proposition displays as continuing to exist unchanged in the *Principles*, which was published in 1817 (Cf. O. St. Clair, *A Key to Ricardo*, 1957, pp. 145–46.) In this case, however, St. Clair is confusing the way of thinking found in both the *Essay* and *Principles*—the view that the accumulation of capital will unavoidably cause agricultural production circumstances to worsen, and that this is what determines long term trends in rates of profit—with the proposition discussed above that was put forward by Ricardo in his early period. St. Clair took no notice of the significance of Sraffa’s assertion that two theories of distribution of a differing nature coexisted in the *Essay*. Stigler, in contrast, while he did not contribute any new thoughts on Sraffa’s work, arrived at the same conclusion insofar as he too acknowledged that The proposition “it is the profits of the farmer which regulate the profits of all other trades” had disappeared in the first edition of the *Principles*. (Cf. G. J. Stigler, *The Ricardian Theory of Value and Distribution*, *The Journal of Political Economy*, 1952, Vol. 60, p. 201).

Regarding the theory of declining rates of profit laid out in the *Principles*, Minokiti Hirase states, “in Ricardo’s formulation, if there is no assumption of a decline in agricultural income a decline in rates of profit will never emerge.” “In this sense, it seems safe to say that even at the stage of the *Principles*, Ricardo still saw agricultural profits as the regulator of rates of profits in general.” (Hirase, Rijnunritsu Teika no Riron to Senryaku [Theory and Strategy of declining Rates of Profit], *Meiji Daigaku Seikeigakubu Sōritsu 60 Shūnen Kinenronbunshū* [Collection of Essays Commemorating the 60th Anniversary of the Founding of Meiji University’s Political Economy Department, pp. 380–83. Emphasis added]. Since they include the restriction “in this sense,” as a basic position I have no particular disagreement with these statements of Hirase’s. But since there is a risk this phrasing will give the reader the impression that the distinguishing proposition of early-period Ricardo’s distribution theory continued to exist unchanged in the *Principles* as well, I think it leaves something to be desired. If in the term “agricultural profits” in the passage quoted above income is employed with the same meaning as agricultural income in the case of declining agricultural income, then of course there is no problem with Hirase’s argument. Normally, however, “income” in the phrase “declining agricultural income” is used with the meaning “amount of harvested corn (net product),” so his statement can at least be described as not having been appropriately phrased.

Elsewhere I have written about this as follows. “Early-period Ricardo, . . . argues that agricultural profits will go down as a direct consequence of the fact that the development of the cultivation of inferior land will reduce the quantity of harvests, and that since general rates of profit are regulated by agricultural rates of profit, the former cannot help but decline in accordance with the latter. . . . However, in the *Principles*, Ricardo strictly applies the theory that value is determined by labour bestowed, and this kind of view is discarded as an error.” (T. Hatori, 1972. *Kotenha Keizaigaku no Kihon Mondai* [*The Fundamental Question of Classical Economics*], Tokyo: Miraisha, pp. 57–58). I do not think there is any need to revise my understanding as stated here. Ryōzō Tomizuka, however, adds the following criticism to my personal views. “Hatori . . . emphasises a ‘pivotal change in views’ in Ricardo between his early period and his *Principles*, but even if it can be said that his early period view is demonstrated more clearly in the *Principles* on the

of profit is sought in the constraints of nature, that is, in the fact that agricultural production circumstances will inevitably worsen as a result of the accumulation of capital, but while in the *Essay* Ricardo attempted to draw a line directly from this fact to a decline in agricultural rates of profit, in the *Principles* he first connects it to increases in the price of corn and increases in wage rates based on this rising prices, and argues that through these effects there will be a decline in rates of profit in general, including both agricultural and commercial and industrial rates of profit.³³

IV Two Logics in the *Essay* (1815)

As we have examined in the previous sections, in the *Essay* Ricardo developed

foundation of the establishment of the labour theory of value, I think it is incorrect to assert that "Ricardo himself threw away" this older view. This is the case because the fact that Ricardo's motif, particularly regarding these issues, was criticism of the "Corn Laws" remained unchanged." (Tomizuka, *Chikusekiron Kenkyū* [*Studies on Theories of Accumulation*], p. 130).

Indeed, as Tomizuka says, "the fact that Ricardo's motif was criticism of the 'Corn Laws' remained unchanged in both the *Essay* and the *Principles*." But we cannot conclude from this alone that the theory of distribution presented in both of these works is fundamentally the same. This conclusion cannot be drawn because the view at the time being the same does not necessarily mean the theory was the same. The only way to determine whether the theory is fundamentally the same is to thoroughly compare and consider the logic of these two texts. Tomizuka should have undertaken this work before writing the passage quoted above.

- 33 As the summary of the theory of declining rates of profit of the *Principles* in the body of the text may have been overly brief, here I will quote another summary-like passage from Tucker. I think he does an excellent job of organising and presenting this theory.

"It followed from Ricardo's theory of value that equal amounts of labour would produce outputs of equal value, whatever changes there might be in physical productivity. If, with the extension of cultivation to less fertile land or the more intensive cultivation of existing farm areas, given amounts of newly-employed labour could produce only diminishing increments of output, the price of corn would increase, so that the amount of value produced by successive equal inputs of labour remained the same. In other words, the price of corn would rise to the extent necessary to compensate the farmer for the diminution in marginal physical productivity; this was essential in order to keep his profits at a level with those gained in manufacturing, where no such increase of real labour costs had occurred. But given the commodity-wage, which included a certain quantity of corn, this rise in the price of corn would lead to an increase in the money-wage of labour in all industries. Therefore the (marginal) producer in agriculture, together with the manufacturer, would be forced to pay out a greater sum of money wages in order to secure an output of a given value; and this would cause an increase in the proportionate share of wages and a reduction of the rate of profit in all sectors of activity." (G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650–1850*, 1960, p. 104.)

an original theory of distribution whose logic differed from that of the theory of distribution presented in the *Principles*. Specifically, if in terms of its conclusions the theory of distribution developed in the *Principles* can be summarised as one constructed from a chain of logic in which accumulation of capital leads to the cultivation of inferior land, which leads to increases in the price of corn, which in turn leads to rising wages and ultimately results in a decline in rates of profit in general, the theory presented in the *Essay* can be characterised as one constructed from a chain of logic in which the accumulation of capital leads to the cultivation of inferior land, which in turn leads to a decline in agricultural rates of profit and ultimately results in a decline in rates of profit in general. In the *Essay*, the population increases at a speed commensurate with the development of the accumulation of capital, and if the standard of agricultural technology is assumed to be fixed, along with the accumulation of capital will come an increase in the demand for corn, and since the only way to achieve an increase in corn production is through the cultivation of inferior land or greater investment in the same area of land, the upshot of this is that agricultural profits must inevitably go down. In this instance, Ricardo departed from the view that labour bestowed was the origin of value, but because he accepted without criticism Smith's doctrine that labour commanded was the measure of value, when it came to conducting his calculation of agricultural rates of profit he chose wheat as his measure of value. The use of this peculiar measure of value caused Ricardo to make logical errors in his argument, and he drew a direct causal connection between decreasing harvests and a decline in agricultural rates of profit. He then introduced the arbitrary proposition that rates of profit in general are ultimately regulated by agricultural rates of profit, and through this proposition claimed a downward trend in profits in general.

The distribution theory summarised above is laid out on pages ten to eighteen of the *Essay*, included in Volume IV of *Works*, edited by Sraffa.³⁴ But from page nineteen of this text onward, a theory of distribution with a different logic from that just described it is also presented.³⁵ For the sake of convenience I refer to the previously discussed theory as the “first type of distribution theory” and the theory we will consider next as the “second type of distribution theory,” with the basic skeleton of this second type of distribution theory being as follows. The accumulation of capital drives the cultivation of inferior land, and since this causes the difficulty of the production of corn and the amount of labour invested in this production to increase, the price of corn rises, causing an inevitable increase in wage rates, and as a result, a decline in rates of profit in general can-

34 Cf. *Essay*, *Works*, IV, pp. 10–18.

35 Cf. *Essay*, *Works*, IV, pp. 19–20.

not be avoided.

This second type of distribution theory laid out in the *Essay* clearly seems to be an early expression of the theory of distribution developed in the first edition of the *Principles*, and indeed it can be seen as having been constructed using a different logic to that of the first type of distribution theory we examined earlier. Here the regulation of value by the amount of labour bestowed is adhered to as the basic logic of the theory, and the muddiness caused by the employment of labour commanded as the measure of value as in the first type of theory is removed. So if we extract the passages concerning both types of distribution theory and compare them, the logic that underpins each of these approaches can be described as being of a clearly different character. We can thus say that two types of distribution theory that logically contradict each other co-exist within the text of the *Essay*, and earlier research making this point by scholars such as Sraffa, Tucker, and Meek is accurate.

Rather than merely point out that two types of theory coexist, however, I think we must also undertake an analysis of what sort of logical relationship is given to these two types of theory of distribution by Ricardo himself in the text of the *Essay*. In other words, I think it is necessary to consider why Ricardo developed two theories that seem to logically contradict each other in the same text, and indeed in passages almost directly adjoining each other.

If we are to examine the point discussed above, what we should focus on first and foremost is the positioning of the discussion of the second type of distribution theory within the account given in the *Essay*. There is an interesting issue with Ricardo's narrative approach lurking in pages eighteen and nineteen of this text; while up until page eighteen he develops the first type of distribution theory by presenting a series of numerical examples, some of which have been discussed above, immediately after concluding this account he begins laying out the second type of distribution theory. As it is important for us to accurately understand this point, here I quote the passage in which this transition in Ricardo's narrative from the first type to the second type of distribution theory occurs fully in spite of its length.

"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.

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 the general rise of wages.”³⁶

This quote is broken into three paragraphs, but they come together to form a single continuous passage. The first paragraph, as was also cited above, gives an overall summary of the first type of distribution theory. The third paragraph is clearly an account of the second type of distribution theory. So the transition from a discussion of the first type of distribution theory to the second type must take place in the second paragraph. While the first type of distribution theory, as we have already observed, begins from a perspective in which the amount of labour bestowed is seen as the origin of value, its facile dependence on the theory that labour commanded is the measure of value causes it to include arguments that deviate from this initial foundation, and the second type of theory of distribution was then developed on the basis of adhering to regulation of value by labour bestowed. As a result, we must of course say that these two theories logically contradict each other. But Ricardo, as seen in the quote above, presents them as if they were not logically contradictory. In other words, with a bit of re-organisation the gist of this passage can be summarised as follows.

36 *Essay, Works*, IV, pp. 18–20.

It is clear that even if the price of corn and wage rates are fixed, general profits will tend to decline in the process of the accumulation of capital. This is the case because if wheat is used as the measure of value, under the progress of the cultivation of inferior land on the basis of increasing accumulation and population it is a given that the amount of capital needed for this land will be greater than that needed for superior land, and thus there will clearly be a downward trend in agricultural rates of profit. And since general rates of profit are regulated by agricultural rates of profit, they will presumably follow the same trend. (Paragraph one).

In practice, however, it is clear that increasing cultivation of inferior land will drive up the price of corn. A downward trend in general rates of profits can be seen even under the assumption that the price of corn is fixed, so since in reality the price of corn will actually rise this trend should be even more pronounced than had previously been concluded. (Paragraph two).

The reason that the price of corn will rise because of the development of the cultivation of inferior land is that the amount of labour needed for the production of corn will increase. But if the price of corn rises, then under the assumption that real wages are fixed it should cause a rise in the rate of money wages. An increase in wage rates, however, must be seen a factor that lowers rates of profit in general. (Paragraph three).

This is what we get if we try to make an organised summary of the passage. But if this summary is more or less accurate, then we can say that in Ricardo's argument the first and second types of theories of distribution are being treated as though they do not logically contradict each other. In his view, in other words, the demonstration of the downward trend in rates of profit is conducted based on the assumption of a fixed price of corn, and if this assumption is then discarded and we consider the situation with rising corn prices this downward trend in profits should become even more marked.³⁷

When we take this view, the first thing we see is that in the *Essay* Ricardo was completely unaware of the logical contradiction between the first type and second type of distribution theory.³⁸ Second, from the approach taken in the writing of the *Essay*, it is clear that Ricardo did not think of the second type of distribution theory as a theory that logically contradicted the first type. In other words, here the first type of distribution theory was put forward as a theoretical system that had already been fully formed, and the second type was developed by Ricardo himself simply as a means of argumentation to externally reinforce the conclusion reached by this earlier theory (the downward trend in profits). This is evinced by the fact that in the first half of the *Essay* the overwhelming majority of the text is devoted to explaining the first type of distribution theory, and it is only after the downward trend in profits has been demonstrated using

this theory that a discussion of the second type of theory appears as a kind of supplementary argument. In other words, the fundamental logic that formed the theory of distribution here was what we have dubbed the “first type” of distribution theory. At this point, what we have termed the “second type” of distribution theory had not yet been systematically organised as a distinct theory of distribution, having been created as merely another argument to bolster the flanks of the ultimate assertion of the first type of theory, and in this sense was given nothing more than secondary position within the *Essay*.³⁷

37 Regarding this understanding there are many places in which I have relied on Meek's interpretation. Meek explains as follows. “The main theoretical argument of the *Essay*, which is designed to explain the effect of the accumulation of capital upon the proportions in which the social surplus is distributed between rent and profit, is developed in two stages. In the first, the analysis is conducted on the assumption that the price of corn and the wages of labour remain stationary. As capital accumulates and population increases, it is necessary to resort to less fertile or less well-situated land (or to employ additional capital on the land already being cultivated) in order to provide more food. . . . By a familiar argument it is shown that . . . the rate of profit in agriculture will decline. And since ‘it is the profits of the farmer which regulate the profits of all other trades,’ this will cause a decline in the general rate of profit on capital. In the second stage of the argument, the assumption that the price of corn and the wages of labour remain stationary is dropped, and the manner in which accumulation and diminishing returns operate on profit by way of their effect on wages is considered. . . . The effects worked out on the assumption of stationary prices and wages, therefore, are reinforced when the variations in prices and wages which must actually accompany accumulation are taken into account.” (R. L. Meek, *Studies in the Labour Theory of Value*, 1956, p. 93)

This analysis of Meek's is very good, and I have no disagreement with the views presented here. When it comes to what he refers to as the first stage of the argument of the *Essay*, in Meek's view this is a theory of distribution that relies on the “corn-ratio theory,” and in this he is basically following Sraffa. This is of course not an aspect of his interpretation I adopt. Meek is therefore also unable to accurately pick out the problems in the first stage of this argument. Namely, when it is assumed that corn prices and wage rates are invariable there is an arbitrary assumption that must be made in order to claim that agricultural rates of profit will decline. This assumption is that *the wheat value of required capital* for inferior land must always be greater than that which had in the past been required for superior land. It is impossible to demonstrate that agricultural profits will decline without making this assumption, but Meek does not identify this issue.

38 As stated above, in the first type of distribution theory an assumption of invariable corn prices is made when considering the process of increasing cultivation of inferior land that accompanies the accumulation of capital, then the making of this kind of assumption itself runs contrary to the idea of the regulation of value by labour bestowed. If an increase in the price of corn as a result of the cultivation of inferior land is acknowledged and this assumption of a fixed corn price is removed, then the proof of the first type of distribution theory itself should presumably collapse.

V A “change in Understanding” after the *Essay*

As has been made clear in our consideration thus far, the fundamental line of argument that composes the theory of distribution developed in the *Essay* is presented through series of logical connections: accumulation of capital and population increase → development of the cultivation of inferior land → decline in agricultural rates of profit → decline in general rates of profit. In the first edition of the *Principles* published in 1817, however, Ricardo arrived at the development of a theory of distribution composed out of a completely different logic. Here the theory of distribution is based on the regulation of value by the amount of labour bestowed, and presented using a well-known series of logical connections: accumulation of capital and population increase → development of the cultivation of inferior land → rising corn prices → rising wages → decline in general rates of profit. Analysis is no longer conducted with an assumption of fixed corn prices and wage rates as it had been in the *Essay*, and gone too is the anomalous proposition that “it is the profits of the farmer which regulate the profits of all other trades.” The logical composition of Ricardo’s theory of distribution thus underwent major changes between the *Essay* and the *Principles*, and we can assume that he experienced a pivotal “change in understanding.”

If so, what should we look to as the theoretical basis that brought about this “change in understanding” in Ricardo’s theory of distribution? We can presumably see this as something based on the development of Ricardo’s own post-*Essay* fundamental theoretical inquiry upon which his theory of distribution was reliant. This development of a new fundamental theoretical inquiry of course refers to his new research in the field of the theory of value, and to facilitate our discussion here I would like to consider this in terms of the following two points. The first is to clarify the path this new inquiry of Ricardo’s took as he became aware of the error of Smith’s view, which he had not been able to get away from in the *Essay*, that labour commanded is the measure of value, discards this approach in favour of the purification/establishment of the regulation

39 Sraffa and Tucker stop at simply pointing out that two logics coexist in the *Essay*, but I do not think this is sufficient. I think we must also consider the questions of which of these logics forms the main line of the argument in this text, and how Ricardo logically related them to each other at the time. Regarding these points, I have the same dissatisfaction with the analysis of Kazuo Jyōza. (See Kazuo Jyōza, “Kotenha no Rijunritsu-Teikaron nitsuite [On Theories of Declining Rates of Profit of the Classical School],” *Seijirō Kishimoto Kanreki Kinen Ronbunshū* [Seijirō Kishimoto 60th Year Memorial Essay Collection, p. 82].

of value through the amount of labour bestowed, and on this basis proceeds to establish the proposition of an adversarial relationship between wages and profits. The second is to clarify the process of the formation of his new understanding concerning the determination of the value of corn that forms the point of contact between his theories of value and rent; this refers not only to the shoring up of his theoretical foundation in order to complete his theory of rent, but also to the establishment of part of the theoretical foundation needed in order to complete his theory of value/surplus value.

1. New Developments in Ricardo's Theory of Value and Understanding of Wages

As we have seen, in the *Essay* Ricardo saw the amount of labour bestowed as the origin of the value of commodities, but nevertheless seems to have accepted almost without criticism Smith's doctrine that the measure to be used in assessing the true value of each commodity was its amount of labour commanded. Two years after publishing the *Essay*, however, in the 1817 first edition of the *Principles* he was clearly working out an approach to developing a theory of distribution based on the regulation of value by the amount of labour bestowed. He writes, "It is according to the division of the whole produce of the land and labour of the country, between the three classes of landlords, capitalists, and labourers, that we are to judge of rent, profit, and wages, and not according to the value at which that produce may be estimated in a medium which is confessedly variable."⁴⁰

Here we see that in the first edition of the *Principles* Ricardo states that in order to solve the problem of distribution we must address it not through the absolute amount of commodities each class obtains but rather through the comparative distribution of commodities between classes; as a result this problem must be addressed in terms of value, and this in turn must be assessed using the amount of labour bestowed and not through a variable medium. In order to develop this kind of theory of distribution based on the regulation of value through labour bestowed, however, it was necessary to tear down the idea of viewing labour commanded as the true measure of value and taking corn to be an approximate measure of value. This is why at the start of the chapter on the theory of value in the *Principles* Ricardo develops a perspective that is critical of Smith's assertion that labour commanded is the measure of value in considerable detail. So when we consider the process of the "change in understanding" regarding

40 Ricardo, *On the Principles of Political Economy, and Taxation*, 1st ed., p. 44; *Works*, I, p. 64.

fundamental aspects of Ricardo's theory of distribution between the *Essay* and the *Principles*, the process of getting away from Smith's doctrine that labour commanded is the measure of value forms one of its central pillars.

Smith looked for the true measure of the exchange value of each commodity in the amount of labour commanded by the commodity in question because he saw "labour" exchanged in markets as itself being a commodity with a fixed value. Ricardo exhibited clear opposition to this claim of Smith's ten months after the publication of the *Essay*; in a letter to Malthus dated January 2nd, 1816, he writes, "I think that corn and labour are the variable commodities, and that other things neither rise nor fall but from difficulty or facility of production, or from some cause particularly affecting the value of money."⁴¹

Since he viewed "labour" as a commodity whose value varies, Ricardo, at least at this point in time, can be considered to have discarded Smith's view that labour commanded is the measure of value and purified/established the regulation of value by labour bestowed. If so, however, why had he come to presume the value of "labour" as variable? Only three months after the publication of the *Essay*, in a letter to Malthus dated May 8th, 1815, he wrote as follows. "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."⁴²

As this makes clear, Ricardo considered that no matter how much the amount of goods produced through the same amount of labour bestowed increases as a result of increases in productive power, the real wages of workers, as long as they are observed over the long term and on average, will merely be maintained at the same level as before. He therefore also thought that the amount of goods used in daily life workers could obtain with their own wages would remain the same as before, and moreover that since in this case the production circumstances of these goods would improve, the value of "labour" would decrease in accordance with increasing labour production power. As a result, by this point in time Ricardo had already rejected Smith's and Malthus' belief that the value of "labour" was fixed, and had therefore discarded Smith's

⁴¹ *Works*, VII, p. 3.

⁴² *Works*, VI, pp. 226–27. In Bonar's collection of Ricardo's writings, this letter is erroneously dated October, 1815.

view that labour commanded was the measure of value, purified the regulation of value by labour bestowed, and adopted a new perspective in which the regulation of value must also be applied to the commodity of “labour.”

But if the fundamental regulation of wages is thereby obtained through the regulation of value through labour bestowed, and the proposition that in practice this will result in the natural rate of wages being determined by the cost of the reproduction of labour power had been formulated, then Ricardo’s theory of distribution was presumably being given a different theoretical content from that found in the *Essay*. In other words, if he assumed that a country’s number of employed workers and their working hours and intensity were givens, then Ricardo could consider the problem of distribution as follows. In this case, it is possible to calculate the value of the gross produce produced in the country in a year, and when it comes to the distribution of these produce among the classes, since wages should be seen as being determined by the reproduction cost of labour power, if for the time being the question of rent is abstracted from consideration, profit can be understood as the “remainder” leftover when the total amount of wages is subtracted from the amount of value of the gross produce. Furthermore, since the value of “labour” is determined by the production circumstances of goods used in daily life, profit can also be grasped as something that varies inversely with wage as changes in production power.

The proposition concerning the inverse movement of profits and wages clearly spelled out in 1817’s *Principles* is indeed the culmination of Ricardo’s research following the publication of the *Essay* discussed above. If so, should we then view this proposition of an inverse relationship between profits and wages as not yet having been established in the *Essay*? In the following passage Stigler offers an interesting insight regarding this question.

Stigler writes, “The *Essay* thus contained two main elements of the Ricardian system: the theory of rent and the dominant influence of diminishing returns in agriculture upon the rate of profits. [But] The completed system required two further elements: the subsistence theory of wages and the measure of value. These were presented in the *Principles*...”⁴³

Here Stigler states that in the *Essay* Ricardo had already completed his theory of rent, but in this he is mistaken—let us return to this point later. What I would like to address here is the argument that the subsistence theory of wages, in Stigler’s opinion, cannot be found in the *Essay*. This is an argument worthy of careful examination. I say this because of the following sentence from a passage quoted above in our examination of the *Essay*.

43 G. J. Stigler, The Ricardian Theory of Value and Distribution, *The Journal of Political Economy*, 1952, Vol. 60, pp. 201–02.

Ricardo writes in the *Essay*, "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."⁴⁴

Looking only at this passage, it seems possible to interpret Ricardo as having already in effect adopted the perspective of the subsistence theory of wages, and of having on this basis been attempting to extract the inverse relationship between wages and profits. If this interpretation is correct, then Stigler's view is mistaken. My own view, however, is that Stigler's way of looking at this text demonstrates a more accurate interpretive approach. My argument is as follows.

In Ricardo's arguments presented in the passages from the *Essay* quoted above, real wages (or, more precisely, corn wages) must obviously be assumed to be fixed. Of course, in the *Principles*, too, Ricardo assumes that real wages are fixed, and understood an inverse relationship between wages and profits. But the reason he assumed real wages were fixed in the *Principles* was that he believed that over the long term wage rates tended to boil down to the cost of reproduction of labour power. If so, had he also been of the same opinion when writing the *Essay*, assumed that real wages were fixed, and made the arguments presented above on this basis in that text as well? The answer to this question is "No." In the *Essay*, Ricardo, having made the arguments outlined above, then makes an additional assumption: "We will, however, suppose that no improvements take place in agriculture, and that capital and population advance in the proper proportion, so that the real wages of labour, continue uniformly the same."⁴⁵

As is apparent, here the assumption that real wages are fixed is being made, and in this premise being adopted it is assumed that "capital and population advance in the proper proportion." Why is this special assumption being made about capital, population, and the speed at which each was increasing? As is widely known, in the *Principles* Ricardo assumed fixed real wages and analysed their effect on the distribution of accumulation, but in making this supposition he did not make any particular assumptions of this sort regarding the speed of the increase of capital and population. His thinking in the *Principles* went as follows. If the speed at which capital is increasing outstrips that at which the population is growing, the demand for labour will surpass supply. The market rate of wages rising above the standard of the natural rate that results will then become a factor that spurs population growth, but it will require a certain amount of time for the population to increase to the point that it is proportional

⁴⁴ *Essay*, *Works*, IV, p. 20.

⁴⁵ *Essay*, *Works*, IV, p. 12.

to the accumulation of capital, and while during this time the market rate of wages will be higher than the natural rate, once this catch-up period is over the population will ultimately increase until it is in proportion to accumulation. In the *Principles* Ricardo thus believed that the pace of the growth of the population, mediated by movements in the market rate of wages, is regulated by the pace of the increase in capital, and ultimately tends to be consistent with it.⁴⁶ But this view had not yet been formulated in the *Essay*, and as a result, in order to think of real wages as fixed he had to *intentionally* make the *assumption* that “capital and population advance in the proper proportion.”

In the *Principles*, Ricardo believed that for a certain period in the process of the accumulation of capital the market rate of wages surpasses the standard of the cost of the reproduction of labour power, but eventually an increase in the population strictly in accordance with the accumulation of capital will be realised and wage rates will return to the cost of the reproduction of labour power. But in the *Essay* this way of thinking hadn't yet been developed. At that point the so-called “subsistence cost” theory of wages, in which over the long term the market rate of wages has a tendency to converge on the standard of the cost of the reproduction of labour power, had not been established. As a result, here the inverse relationship between wages and profits could not be cleared extracted. In the previous quotation from the *Essay* it is pointed out that when the value of corn rises wage rates also rise accordingly, and as a result profits will fall. This argument, however, is based on the hypothesis that real wages are fixed, and this hypothesis that real wages are fixed is indeed nothing more than a conjecture made for the sake of convenience within the context of Ricardo's overall argument. It was therefore not Ricardo's intention to extract an inverse relationship between wages and profits at that point in time. Evidence for this is provided in the following passage from the *Essay*. “As experience demonstrates that capital and population alternately take the lead, and wages in consequence are liberal or scanty, *nothing can be positively laid down, respecting profits, as far*

46 In contrast to the approach taken by Ricardo in the *Principles*, Smith referred to a wage rate that brought the pace of population growth in line with the pace of capital growth as the natural wage rate. In other words, in the case of a state of social development in which capital is constantly being accumulated, Smith thought of the *natural wage rate* as one that *always* maintained itself above the minimum standard of living. Contrary to this, the Ricardo of the *Principles* saw the market rate of wages as one that was ultimately consistent with the cost of the reproduction of labour power, even during the development process of capital accumulation. Regarding this point, the Ricardo of the *Essay* seems to have taken a similar view to that of Smith. I have considered Smith's argument in some detail elsewhere (see my *Kotenha Shihonchikusekiron no Kenkyū* [A Study of the Classical School's Theory of Capital Accumulation], Chapter 1, Section 2).

as wages are concerned.”⁴⁷

The idea that wage rates return to the standard of the cost of the reproduction of labour power was not present in the *Essay*. As a result, the portion of the gross produce of society distributed to wage incomes cannot be determined, and “nothing can be positively laid down, respecting profits, as far as wages are concerned.” Stigler’s characterising the theoretical system of the *Essay* as follows should therefore be considered insightful. “The system does determine the division of product between landlords and others, but not between capitalists and labourers. Ricardo avoided this later problem.”⁴⁸

So as we have seen, while Ricardo’s presenting a new essential regulation of wages based on the regulation of value by the amount of labour bestowed in the *Principles* signified the establishment of a foundational foothold for the formation of his new theory of distribution, at the same time it also implied, as we have already discussed, a repudiation of Smith’s view in which labour commanded was the measure of value. But if the true exchange value of each commodity could not be measured by its amount of labour commanded, and, as a result, the use of corn as an approximate measure was not permitted, then how was exchange value to be measured? This was the question that concerned Ricardo the most following the publication of the *Essay*.

In the *Essay*, Ricardo was already looking for the origin of exchange value in the amount of labour bestowed. But he nevertheless chose the amount of labour commanded as the measure of value, and saw corn as an approximate measure. This split between his understanding of “origin” and choice of “measure” arose for the following reason: even if one takes the approach of considering this issue from the perspective of seeking the origin of exchange value in the amount of labour bestowed, the magnitude of each commodity’s exchange value cannot be grasped by directly tying it to the amount of labour bestowed on that commodity’s production. This is the case because even if there is no change in the amount of labour bestowed on the production of commodity A, the exchange value of commodity A measured in terms of a quantity of commodity B may vary if there is a change in the production circumstances of commodity B. Thus to the extent that exchange value is relative, even if it is possible to view the amount of labour bestowed on the production of each commodity as the “origin” of exchange value, this cannot be considered a “measure” capable of accurately ascertaining the magnitude of the exchange value of these commodities. This is the reason for the split between the understanding of the “ori-

⁴⁷ *Essay*, *Works*, IV, p. 23.

⁴⁸ G. J. Stigler, The Ricardian Theory of Value and Distribution, *The Journal of Political Economy*, 1952, Vol. 60, p. 201.

gin” and the choice of a “measure,” both in Smith’s case and in the case of Ricardo at the time of the *Essay*.

Incidentally, as was just noted, only three months after the publication of the *Essay* Ricardo clearly understood that the value of “labour” was not invariable. This being the case, he could no longer choose the amount of labour commanded as his measure of exchange value and was forced to look for something else to replace it.

Ricardo’s pamphlet *Proposals for an Economical and Secure Currency* was published in February of 1816, but can be thought of as having been written in the autumn of the previous year, and in it he writes as follows. “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. . . . Nothing is so easy to ascertain as a variation of price, nothing so difficult as a variation of value; indeed, without an invariable measure of value, and none such exists, it is impossible to ascertain it with any certainty or precision.”⁴⁹

In Ricardo’s view, a commodity capable of functioning as a measure of value must itself possess a value that is invariable. But for a commodity’s value to be invariable, the amount of labour bestowed on its production must be fixed and invariable no matter where or when it is made. In reality, however, there is presumably no such commodity. That said, it is theoretically impossible to develop a theory of distribution without an invariable measure of value. It is therefore necessary to *assume* that some commodity’s value is invariable and formulate the theory on this basis. In a letter to James Mill dated December 30th, 1815, Ricardo writes as follows.

“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 sheet anchor on which all my propositions are built.”⁵⁰

Evidently, at this point Ricardo assumed that the value of monetary commodities was invariable, and by employing this kind of money as a measure of value was attempting to construct a new theory of distribution. Ricardo himself

49 *Proposals for an Economical and Secure Currency*, Works, IV, p. 60.

50 Works, VI, p. 348.

acknowledged that in reality money is by no means a commodity with a fixed value. But the assumption that the value of money is invariable was not particularly invalid as a procedure in theoretical abstraction. This letter also includes the timorous phrase "I know I shall be soon stopped by the word price," indicating that even at this point Ricardo himself was anticipating that doubts would be raised by his process of analysis in which money was used as the measure of value. In fact, in a letter to Malthus dated February 7th, 1816, he complained that his inquiry had reached a very difficult point, writing, "If I could overcome the obstacles in the way of giving a clear insight into the origin and law of relative or exchangeable value I should have gained half the battle."⁵¹ What's more, in a letter dated April 24th of the same year, he writes, again to Malthus, that indeed "obstacles almost invincible oppose themselves to my progress, and I find the greatest difficulty to avoid confusion in the most simple of my statements,"⁵² frankly admitting that his research had reached an impasseness from which it was difficult to proceed. In his reply to this letter, dated April 28th, Malthus writes, "I cannot help thinking that the reason why with your clear head, you find a difficulty in your progress is that you are got a little into a wrong track. On the subject of determining all prices by labour, and excluding capital from the operation of the great principle of supply and demand, I think you must have swerved a little from the right course."⁵³

Heedless of Malthus advice, however, Ricardo followed his original course of attempting to construct a theory of distribution on the basis of the regulation of value by the amount of labour bestowed, and continued his efforts to break through the impasseness mentioned above. As Sraffa points out, Ricardo seems to have become confident he had solved this problem he had set himself when he wrote his letter to Mill dated October 14th, 1816. In this letter, which accompanied the manuscript of what would become the first seven chapters of the *Principles*, he writes, "You will see the curious effect which the rise of wages produces on the prices of those commodities which are chiefly obtained by the aid of machinery and fixed capital."⁵⁴ As Sraffa notes, however, at this point the basic skeleton of the chapters on the theory of value that would appear in the first edition of the *Principles* had already been completed, and this can be seen as signifying that Ricardo was confident he had provided a solution to the problem that had given him so much trouble in the past.⁵⁵

⁵¹ *Works*, VII, p. 20.

⁵² *Works*, VII, p. 28.

⁵³ *Works*, VII, p. 30.

⁵⁴ *Works*, VII, p. 82.

⁵⁵ Cf. Sraffa, Introduction, *Works*, I, pp. xxxiv–xxxv. On this point, see also Chapter 5, Section 4 of this book [Hatori 1972].

If so, however, what was the nature of the problem that vexed Ricardo between the end of 1815 and the autumn of 1816? And how did he attempt to deal with or resolve it? The problem stemmed from the fact that, as discussed above, even if he accepted as correct the view that the “origin” of exchange value lay in the amount of labour bestowed on the production of a commodity, it was not feasible to go directly from there to seeking the “measure” of exchange value in the amount of labour bestowed. As for why it was impossible to directly view labour bestowed as the “measure” of exchange value, this was because, given that exchange value was an essentially relative value that indicated the rates of exchange between commodities in actual markets, the exchange value of a given commodity shown in terms of amounts of various other commodities could not be seen as something directly determined only by the labour bestowed on its production.

This was the kind of problem Ricardo found himself facing. It is a problem that presumably compels those who adopt the perspective of the labour theory of value to formulate a concept of the absolute value or value as something substantial of each commodity underlying exchange value. In fact, it seems safe to conclude that Ricardo himself, when he speaks of the “origin and law of relative or exchangeable value” in the letter to Malthus quoted above, indeed believed that the substance of value lay hidden beneath exchange value, and that the amount of labour bestowed should be understood as being directly tied to the absolute value of each commodity. The first half of the chapter on value in the *Principles* also indicates that Ricardo’s thought proceeded along these lines in later years as well.⁵⁶

But when Ricardo was working out this approach in which mediation through the establishment of the concept of an absolute value underlying exchange value is necessary in order to connect exchange value and the amount of labour bestowed, at the same time he was also grappling with another difficult problem. Since what had drawn him to a study of the theory of value in the first place was attempting to use it to give essential regulation to wages, and on this basis to come to grips with the essential regulation of profits, in his case, when it came to thinking about the problem of commodity value, the problem of wages and profits was also on his mind. As has already been noted, his critique of the “labour commanded is measure of value” approach itself also incorporated this kind of meaning. While this shows that his study of the theory of value was not merely armchair theoretical musings but was in fact guided by an acute awareness of the need to explicate the mechanisms of actual capitalist economies, it also carried with it the risk of pulling the process of logical manipula-

56 For details on this point see Chapter 5, Section 2 of this book [Hatori 1972].

tion in his analysis this way and that. In fact, while Ricardo attempted to provide the essential regulation of wages and profits early in his study of the theory of value, what he called "profits" at the time were nothing more than profits in a society in which the free movement of capital between different sectors of industry has been adequately established, or, in other words, profits based on the assumption of a profit rate leveling mechanism. Because of this, he soon began to discuss natural prices even though his original topic of inquiry was the value of commodities. In short, Ricardo adopted an approach in which absolute value and natural price were viewed as identical without having made the conscious decision to do so. While he regarded these two things as identical, as he took the view that, since price was nothing more than the monetary expression of exchange value, if monetary value were assumed to be invariable then it ought to be possible to understand natural price as directly tied to the amount of labour bestowed, he was then faced with an even more difficult problem. It goes without saying that if there are differences in the combination of fixed and circulating capital or period of durability of fixed capital being used in various sectors of industry within society, even if there are no changes whatsoever in the amount of labour bestowed on the production of each commodity, fluctuations in wage and profit rates will presumably give rise to changes in the relative magnitude of natural prices between different commodities. But since Ricardo viewed natural price as identical to absolute value, he had no choice but to see these changes in the relative value of commodities caused by fluctuations in wage and profit rates as a fact that overturned the regulation of value by the amount of labour bestowed. The problem of how to explain this fact so that it didn't conflict with the regulation of value by the amount of labour bestowed had been a matter of greatest concern to Ricardo since the end of 1815, and indications that he had reached a kind of solution can be found, as we have already seen, in his letter to Mill written in October of 1816.

No matter how we should evaluate the content of Ricardo's so-called "revised theory of value," developed in the latter part of the chapter on the theory of value in the first edition of the *Principles* after Ricardo had at last found a solution to this problem in the autumn of 1816, the solution to this difficult problem presumably gave Ricardo confidence that constructing the fundamental system of his theory of distribution on the basis of the regulation of value by labour bestowed in accordance with his initial approach was the only correct way forward. From around this time, therefore, along with reconfirming that the value of "labour" as a commodity is regulated by the amount of labour bestowed on the production of goods used in daily life, he was also able to declare that profits for each commodity were the "remainder" left when the value of wages obtained by labourers for their labour in producing a product were subtracted

from the total value of the commodity determined by the amount of labour bestowed on its production, and, as a result, that fluctuations in wage rates, by causing fluctuations in wage incomes as a dividend of value, caused inverse changes in the amount of profits as a divided income.

In a letter to Malthus dated May 28th, 1816, Ricardo writes, “My labours have wholly ceased for two months;—whether in the quiet and calm of the country I shall again resume them is very doubtful,”⁵⁷ but in another letter, once again to Malthus and dated August 8th, having already strongly laid out the assertion of an inverse relationship between wages and profits on the basis of the regulation of value by labour bestowed, he writes as follows. “Now if labour rises, no matter from what cause, profits will fall;—but there are two causes which raise the wages of labour, one the demand for labourers being great in proportion to the supply—the other that the food and necessities of the labourer are difficult of production, or require a great deal of labour to produce them. The more I reflect on the subject the more I am convinced that the latter cause has an incessant operation.”⁵⁸

As is apparent from this passage, in this letter Ricardo was trying to make it clear that in the long term wage rates reduce to the cost of the reproduction of labour power, and as a result that wages and profits should be understood as component parts that move inversely to each other. There is no reason not to assume that the work of establishing the proposition of the inverse movement of profits and wages on the basis of the regulation of value by the amount of labour bestowed was completed sometime that autumn. In a letter to Malthus dated October 5th Ricardo writes, “Profits I think depend on wages,—wages depend on demand and supply of labour, and on the cost of the necessities on which wages are expended,”⁵⁹ and in another letter, also to Malthus and dated October 11th, he further clarifies this as follows.

“What I say is that profits will rise when wages fall, and as one of the main causes of the fall of wages is cheap food and necessities, it is *probable* that with facility of production, or cheap food and necessities, profits would rise. . . . All I mean to contend for is that profits depend on wages, wages, under common circumstances, on the price of food, and necessities, and the price of food and necessities on the fertility of the last cultivated land.”⁶⁰

57 *Works*, VII, p. 36.

58 *Works*, VII, p. 57.

59 *Works*, VII, p. 72.

60 *Works*, VII, p. 78.

2. New Developments in Ricardo's Understanding of Rent

Now let us consider the second circumstance concerning a fundamental question that caused the "change in view" in Ricardo's theory of distribution between the *Essay* and the *Principles*. As we have already learned, Ricardo's study of value deepened markedly following the publication of the *Essay*, and along with purifying and establishing the regulation of value by the amount of labour bestowed, he came to understand the essential regulation of both categories of income, wages and profits, on the basis of this regulation of value. It can therefore be concluded that Ricardo's way of looking at rent also underwent a significant change during this period. This conjecture of mine, however, runs counter to Stigler's account. According to Stigler, two of the elements that comprise the theory of distribution in the *Principles*, namely, the view that the operation of the law of diminishing returns in agriculture will have a governing influence on long term trends in the rate of profits and the basic skeleton of the theory of rent in a completed form, had already been put forward.⁶¹

But can it be said that Ricardo had already completed the basic skeleton of a theory of rent in the *Essay*? He does indeed define rent in the *Essay*, describing it as "the remuneration given to the landlord for the use of the original and inherent power of the land,"⁶² and concerning the causes of the emergence/increase of rent argues that differing amounts of rent for superior land are created or increased by differences in the degree of fertility and location of cultivated land.⁶³ On top of this he also points out that when more and more capital is invested in the same area of cultivated land, the law of diminishing returns comes into effect, and the difference between the profits of the latest invested capital and earlier investments turns into rent as it emerges/increases.⁶⁴ On the basis of this understanding of rent, he then asserts that "rent then is in all cases a portion of the profits previously obtained on the land. It is never a new creation of revenue, but always part of a revenue already created."⁶⁵

Stigler was presumably focusing on the above passages when he sought to confirm the completion of Ricardo's theory of rent in the *Essay*. But in the *Essay* Ricardo's theory of value was still in an incomplete state; he employed corn as a measure of value when examining the problem of distribution, and as a re-

61 Cf. G. J. Stigler, The Ricardian theory of Value and Distribution, *The Journal of Political Economy*, 1952, Vol. 60, p. 201

62 *Essay, Works*, IV, p. 18

63 Cf. *Essay, Works*, IV, p. 13.

64 Cf. *Essay, Works*, IV, p. 14.

65 *Essay, Works*, IV, p. 18.

sult developed a view that departed from his initial perspective in which value was regulated by the amount of labour bestowed. This indicates that, within the *Essay* at least, it was not the case that Ricardo's theory of rent had the labour theory of value at its foundation and was constructed as a logical development of this approach. It therefore seems desirable for us to demonstrate the differences between the *Essay* and the first edition of the *Principles* concerning the internal relationship between Ricardo's theory of value and his theory of rent.

What forms a point of connection between Ricardo's theory of value and theory of rent is his theory of the determination of the value of corn. As is widely known, in the first edition of the *Principles* Ricardo establishes the proposition that what regulates the value of corn is the amount of labour bestowed on the production of corn under the poorest production conditions.⁶⁶ If so, can it perhaps be said that he had already put forward this proposition in the *Essay*? Nowhere in the arguments presented in the *Essay*, however, is any mention of this issue to be found. As I have already mentioned, in the *Essay* he was clearly hammering out a perspective in which exchange value is regulated by the amount of labour bestowed. But was he thinking of the amount of labour required under the given production conditions as that which regulates the value of corn? Nothing is said concerning this matter in the text of the *Essay*. In order to find out what he was thinking about this problem while he was writing the *Essay* and around the time of its publication, we thus have no choice but to rely on what he wrote in his letters to friends during this period.

In order to make a determination on this point, we must consult two letters Ricardo wrote to Malthus immediately after the publication of the *Essay*. To begin with, in a letter dated March 14th, 1815 Ricardo offers the following numerical example.

"My opinion is that corn can only permanently rise in its exchangeable value when the real expences of its production increase. If 5000 quarters of gross produce cost 2500 quarters for the expences of wages etc., and 10000 quarters cost double or 5000 quarters, the exchangeable value of corn would be the same, but if the 10000 quarters cost 5500 quarters for the expences of wages etc. then the price would rise 10 percent because such would be the amount of the increased expences."⁶⁷

He continues to discuss the issue in a follow-up letter dated March 17th, offering another numerical example.

66 He writes, "The value of corn is regulated by the quantity of labour bestowed on its production on that quality of land, or with that portion of capital, which pays no rent." (*Principles*, 1st ed., p. 62; *Works*, I. p. 74)

67 *Works*, VI, p. 189.

"Suppose the produce of the country 10 millions of quarters, with the price at £4 per quarter, the number of labourers employed 2 1/2 millions, each receiving 2 quarters of corn annually as wages. Suppose too that the population increases, and 5 millions of quarters more are required, but that it can not be obtained with less labour than that of 2 millions of men. If we suppose the price to increase in proportion to the number of men employed, it will rise to £4.16, because to raise 10 millions of quarters an average of 3 millions of men would be now required instead of 2 1/2 millions. [. . . but this calculation is not sufficiently accurate] because the price of corn would not I think rise in proportion to the greater number of men employed but to the greater amount of wages paid, —it would not therefore rise to £4.16 but to £4.4." ⁶⁸

If we consider the numerical examples given in these two letters, we can see that, since in Ricardo's opinion the magnitude of the amount of labour bestowed on the production of corn, as that which regulated its value, had to be measured through the magnitude of spending on wages, this approach itself straightforwardly demonstrates the immaturity of the labour theory of value to which Ricardo adhered during this period. Since another, more important problem is to be found within these numerical examples, however, let us pass over this issue for now. This more important problem is as follows. If we say that the value of a commodity is regulated by the amount of labour bestowed on its production, then in the case of corn the question of what sort of production circumstances this amount of labour is bestowed under becomes an issue. In both of Ricardo's letters quoted above, when he calculates the value of corn it is derived using the ratio of the *total production* of corn to the *total amount of labour* in the society in question. In this discussion of Ricardo's, therefore, the view being adopted is that *the amount of labour bestowed on its production under average circumstances regulates the value of corn*.

This view, however, is clearly incompatible with the one presented in the first edition of the *Principles*. In the first edition of the *Principles*, Ricardo believes that the amount of labour needed under the least favorable production conditions regulates the value of corn. In the *Principles* he therefore explains a state of affairs in which the development of cultivation of inferior land causes an increase in the value of corn using the following numerical example.

"To make this obvious, and to show the degrees in which corn and money rent will vary, let us suppose that the labour of ten men will, on land of a certain quality, obtain 180 quarters of wheat, and its value to be 4*l.* per quarter, or 720*l.*; and that the labour of ten additional men will, on the same or any other land, produce only 170 quarters in addition; wheat would rise from 4*l.* to 4*l.* 4*s.* 8*d.*

68 *Works*, VI, p. 193.

for 170: 180:: 4l.: 4l. 4s. 8d.; or, as in the production of 170 quarters, the labour of 10 men is necessary in one case, and only of 9.44 in the other, the rise would be as 9.44 to 10, or as 4l. to 4l. 4s. 8d.”⁶⁹

If we compare this to the previous numerical examples, we can conclude that in the period around the writing of the *Essay* Ricardo had not yet fully established his principle of the determination of the value of corn. But the fact that this principle had not yet been established was not merely an indication of the immaturity of his labour theory of value; at the same time, it also signifies the incompleteness of his theory of rent as a theory of differential rent. At first glance, it seems that his theory of rent is already present in a complete form in the *Essay*. But this theory was only proved by employing corn as the measure of value and demonstrating that profits would tend to decline on the basis of the arbitrary assumption that along with increasing cultivation of inferior land the amount of capital, measured in corn, needed to harvest the same total amount of crops would gradually increase. As was just stated, this line of argument was clearly a departure from Ricardo's original perspective based on the labour theory of value. Moreover, during the period when he was writing the *Essay*, when Ricardo tried to get rid of the assumption that the value of corn was fixed, acknowledge that the value of corn increased along with the cultivation of inferior land, and incorporate these circumstances into his argument, this time he sought the regulator of the value of corn in the amount of labour bestowed under average production conditions, and therefore was unable to find a way to clarify the principle of the emergence and increase of rent as value.

The completion of Ricardo's theory of rent would thus have had to wait until he himself had undertaken the purification and completion of the classical school's theory of value, and therefore must be assumed to have taken place a considerable amount of time after the publication of the *Essay*. At very least it can be said that in March of 1815 his theory of rent had not yet been completed. If so, when was it that Ricardo noticed the gaps in the principles of the old theory, and began the work of recasting it? Since awareness of this issue is almost entirely lacking in the existing research on this topic, very little has been said in reference to it. Even in the results of Sraffa's vigorous and meticulous research there are no hints that shed light on this point. It is thus a question that is well beyond my ability to pursue at present.

There is, however, one point that can be noted here. In a letter to Malthus dated October 11th, 1816, Ricardo writes, “All I mean to contend for is that profits depend on wages, wages, under common circumstances, on the price of food, and necessities, and the price of food and necessities on the fertility of

69 *Principles*, 1st ed., p. 76 footnote; *Works*, I, p. 83 footnote.

the last cultivated land.”⁷⁰ As this passage makes clear, by the autumn of that year, at least, Ricardo had established the view that it was the greatest amount of labour bestowed on the poorest land being cultivated that regulated the value of corn. As a result, it can presumably be said that at this point in time Ricardo was looking for the roots of the emergence of rent in the fact that when the cultivation of inferior land begins to develop, corn produced on superior land comes to possess a social value above and beyond the individual value created by the amount of labour bestowed on its production. With this approach he attempted to derive the essential regulation of rent on the basis of the regulation of value by the amount of labour bestowed, and create a consistent unification of his theory of rent and the labour theory of value.

Three days after writing this letter to Malthus, Ricardo sent the manuscript of the chapter on his theory of rent in the *Principles* to Mill, and in a reply dated November 18th Mill gave the following reaction after having read this text.

“Your exposition and argumentation to shew, in opposition to A. Smith, that profits of stock [being paid because of the accumulation of stock] do not disturb that law [that the amount of labour bestowed regulates value], are luminous. So are the exposition and argumentation to shew that rent [being paid because of the ownership of land] also operates no such disturbance.”⁷¹

As can be surmised from this reaction of Mill's, it can be said that in the autumn of 1816 Ricardo was able to mount a full-fledged criticism of Smith's theory of ownership—the view that in social circumstances in which capital is being accumulated and land is owned, the amount of labour bestowed is not in the end the only circumstance that regulates the value of commodities—through purifying/establishing the approach in which value is determined by labour bestowed. As a result, it can be said that during this period his theory of rent was based on the regulation of value by labour bestowed, and consisted of a newly reconstructed form of what had appeared in the *Essay*.

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⁷⁰ *Works*, VII, p. 78.

⁷¹ *Works*, VII, p. 98.