Sraffa's monumental edition, *The Works and Correspondence of David Ricardo* (1951-73) in eleven volumes (with the collaboration of Maurice Dobb) is widely acknowledged in the profession for its rare and magnificent scholarship. Although the search for unpublished manuscripts for the edition commenced in 1930, it was not until 1951 that the first volumes of the *Works* appeared in print. It is striking that Piero Sraffa, a remarkably original thinker and a nonconformist in many ways, immersed himself in editing the works of a single writer over such a protracted period of his youthful years. Stigler (1953) counts this as one among a number of 'fortunate' circumstances for Ricardo. If, perhaps, reflects more Sraffa's own evaluation and perception of the crucial significance of Ricardo in the formation and development of economic theory, a deep concern engaging Sraffa from his earlier writings.

An understanding of Ricardo's theory is crucial in order to decipher the logical foundations of classical political economy in its formative beginnings, as well as to grasp the origins of the later marginalism which eventually submerged the classical approach. In his later work, *Production of Commodities by Means of Commodities* (1960), Sraffa was to seek a 'return' to the standpoint of the old classical economists from Adam Smith to Ricardo. His work on Ricardo needs to be perceived in the light of this larger objective, although it does not contradict the fact that, in presenting Ricardo's works, he assiduously maintains the utmost objective neutrality in following Ricardo's own trail of inquiry.

When the *Works* first appeared no reader or reviewer could but be impressed by the meticulous care and precision born of the indefatigable searches for information, in the minutest detail, which suffused the editorial commentaries. Sraffa's reputation until then rested on his razor-sharp logic as a critic, his introduction, particularly to English readers, being through his assaults on Marshallian orthodoxy and on Hayek (see Sraffa, 1925, 1926, 1930, 1932). The *Works* revealed another facet of his scholarship - as a patient explorer and constructive thinker. Reconstructing Ricardo from his own materials, Sraffa's commentary brought to light the analytical underpinnings of Ricardo's thought and the logical structure of his arguments. The brevity and severe self-abnegation reflected in these editorial notes, however, concealed, in the unobtrusive phrases and remarks, their powerful insights so that Stigler, who reviewed the first nine volumes and gave fulsome praise to their
erudition, wrote that ‘these nine volumes often amplify and sometimes modify our understanding of his [Ricardo’s] doctrines, but they do not change it in essentials’. Further, ‘Aside from the Introduction to Volume 1, Sraffia’s editorial prefaces and notes serve an informative rather than interpretative function. The editorial notes are superb; they are never obtrusive or pedantic; and they maintain unfailing neutrality’ (1953, p. 304). As later events have proved, Sraffia’s commentaries on Ricardo have had a far greater impact and influence than this appreciation recognized. We need to note, however, that Sraffia’s originality in the interpretation of Ricardo is not that of an inventor, but of an explorer.

Sraffia’s ‘Introduction’ to Volume 1 of Ricardo’s Principles, which Stigler, as quoted above, considers interpretative more than informative, attracted much attention; especially the single paragraph wherein Sraffia offered the ‘rational foundation’ for Ricardo’s principle of the determining role of the profits of agriculture (expounded in the Essay). He followed this argument up by indicating the instrumental role of the labour theory of value in the generalization of the theory of profits in Principles (I, pp. xxxi-xxxii). The attractive formal properties of the ‘corn model’ were to induce a number of theoretical exercises by authors with widely different perspectives (see Baumol, 1965; Kaldor, 1953-4; Pasinetti, 1974; Samuelson, 1959, among others). Many other perceptive remarks and passages in the widely – but not always deeply read – ‘Introduction’, containing insights into the logical structure of Ricardo’s theory of value and distribution passed relatively unnoticed. Sraffia’s Production of Commodities, reviving the classical standpoint, appears to have drawn out the fuller import of some of these perceptions and observations in the editorial commentaries, and has generated renewed controversy on the interpretation of Ricardo’s theory and its position in classical political economy as well as its relation with marginalist theory. Ricardo once again arouses controversy, after more than a century and a half, as much as he did when he made his stormy entry into theoretical debates with his 1815 Essay.

In the following section we focus on the significance of the contribution that the Sraffia edition makes to our stock of knowledge on Ricardo, and the new light that his editorial commentaries throw upon a number of controversial issues. In Section 2, we note a theoretical standpoint that emerges in Sraffia’s reading of Ricardo’s theory of value and distribution in opposition to certain other viewpoints and interpretations that have had an important influence on the understanding of Ricardo. In the concluding section we refer briefly to certain prominent controversies that have emerged in more recent times, particularly after the publication of Sraffia’s independent work, Production of Commodities.

1 Sraffia as Editor of Ricardo

In 1933 Keynes, who had entrusted the work of the Ricardo edition to Sraffia, had remarked that Piero Sraffia ‘from whom nothing is hid’
would bring out the works of Ricardo within that year (Keynes, 1933, p. 138). The long-delayed publication of the *Works* had its compensation in terms of the invaluable finds that rewarded the relentless investigations of Sraffa, who pursued every minute clue for tracing missing papers and collecting relevant evidence. Among these new materials were the discovery of both sides of the extensive correspondence between Ricardo and James Mill, and Malthus’s letters to Ricardo, as well as other miscellaneous letters published in the volumes of letters (*Works*, VI–IX). Among the several papers and notes, previously unpublished, was found the paper on ‘Absolute Value and Exchangeable Value’, left unfinished by Ricardo at the time of his sudden death. The story of the discoveries is narrated by Sraffa in the general preface in his characteristic style: all the relevant information and concrete details are densely packed into brief observations which, nevertheless, are alive with a sense of drama and the thrill of discovery. While ‘providence’ and ‘accident’ played their part, it is probably the diligent and relentless pursuit, tracking down persons and materials with an investigator’s ingenuity and armed with a familiarity of historical events and records, that allowed Sraffa to achieve the comprehensiveness of the *Works* and to suffuse the editorial notes with the vast fund of information on the events and personages, as well as the economics, of the period. Illustrative of this is the Appendix, ‘Mr.— of the Bullion Report’ (*Works*, III, pp. 425–34), wherein Sraffa builds up a conjecture as to the identity of ‘Mr.—’ in the Bullion Report, an ‘anonymous continental merchant’. As in many other cases, Sraffa’s conjecture was later confirmed by independent evidence. (For example, Stigler [1953] reports how Sraffa’s conjecture as to how two chapter eights appeared in the first edition [*Works*, I, p. xxviii] was verified by the discovery of a copy in the Columbia Library.)

Sraffa’s primary role is not merely that of an intellectual sleuth: the analytical order that he brought to the entire material is evident even in the forms of presentation that he carefully adopted. For example, in annotating changes in the successive editions of Ricardo’s *Principles*, he provided a useful table of concordance. The arrangement was used profitably by Sraffa in his own ‘Introduction’ to adduce important evidence for his analytical interpretations of the changes in the text which had earlier provided fertile ground for speculation on Ricardo’s ideas, their logical content and his ‘intentions’. Ricardo’s *Notes on Malthus* are also presented in a form (*Works*, II) which immediately brings to the readers the textual context of Ricardo’s notes and the exact points of controversy between Ricardo and Malthus. The historical material is presented with a concrete sense of events and persons. In presenting the correspondence, for example, Sraffa so arranges and annotates the letters that ‘the reader is thus placed as it were behind Ricardo’s desk at Gatacomb Park and reads the letters as Ricardo writes them or receives them’ (*Works*, VI, p. xiv). Volume XI, the *Index* for the *Works*, is a masterpiece by itself, where the meticulously phrased entries capture their analytical essence in precise terms. We know that the final version of the *Index* was published after several earlier efforts had been discarded by
Sraffa as unsatisfactory. The Index, too, as other parts of the Works, exudes brevity but not at the cost of precision. Thanks to his Herculean efforts, Sraffa offers a complete picture of Ricardo's intellectual activities and associations during his short but active career. Further, as Sraffa himself remarks:

It is perhaps unique in economic literature for the writings, letters and speeches of one thinker to have such unity of subject matter ... that although his works and correspondence are extant almost complete, they admit of publication virtually in their entirety as being all of them of interest to the economist. (I, p. vii)

It is this unity of the subject-matter and comprehensiveness which Sraffa uses profitably to present Ricardo's intellectual itinerary.

The filling in of the major gaps in the Ricardo papers thus gives a unity and historical continuity to the development of Ricardo's ideas. This is all the more important because Ricardo, carving out his own theoretical framework and attempting to achieve consistency within the same, discussed his 'peculiar' theories and ideas in the correspondence which, along with the published works, presents a continuous flow and exchange of ideas. With their help, Sraffa helps us to perceive the manner in which Ricardo posed certain central questions (particularly on the explanation of the rate of profits on which he appears to have been continuously engaged), the form which theoretical difficulties successively assumed in his frame of thinking – and were perceived, as such, by him and his contemporaries – as well as the means which he sought to resolve the difficulties.

Speculations about Ricardo's theoretical positions and changes in them, and also about the grounds of differences with his contemporaries, have arisen on the basis of the diverse interpretations by scholars who often could not have access to Ricardo's correspondence and notes – at least, not in their entirety. Some of these instances are examined by Sraffa in his 'Introduction', utilizing the new exegetical and other evidence. An important example is that of assessing the exact content and nature of James Mill's contribution to Ricardo's theoretical writings. While the correspondence bears out Mill's influence in stimulating and encouraging Ricardo, Sraffa shows that 'it was less than might have been expected from the promises and encouragement', and certainly does not support a view that was first voiced by Professor Dunbar (1887, p. 471) that 'Ricardo's book was written, not for the public eye but as a statement of opinions made for his own purposes, and that its publication was an afterthought of his friends'. This comment was not confined to incidental observations on Ricardo's personal character, but had a much deeper impact when Marshall used the same ground to suggest that this explained Ricardo's proclivity to omit 'many things' which were necessary to the logical completeness of his arguments but which would have been regarded by him as obvious to the 'statesmen and businessmen' to whom he primarily addressed his researches.
Marshall then attempted to provide the logical complements to Ricardo's theory, and thence to suggest that Ricardo shared the same theoretical perspective and approach as his own. What is even more important is that certain misunderstandings of Ricardo's position on value appear to have crept into the 'Index' to his Principles (Works, I) which was probably compiled by James Mill. Critics pointing out inconsistencies between the text and the 'Index' interpreted these inconsistencies as reflecting Ricardo's ambivalences and contradictions, particularly on the labour theory of value (see pp. xxi-xxii). It may seem that the influence of James Mill on Ricardo's theoretical writings or Ricardo's writing habits are rather trivial matters to deserve the elaborate attention they receive in Sraffa's 'Introduction', but this is not so. Indeed, it is remarkable how the related misunderstandings on these matters provided a basis for bold and significant inferences regarding the logical status and structure of Ricardo's theory, persuading generous interpreters to impose their own system and logical order – and hostile critics to discard Ricardo's theory altogether.

Similarly important are Sraffa's detailed discussions of what may seem purely technical and formalistic matters regarding 'arrangements and subdivisions' of chapters in Ricardo's Principles. Ricardo's critics commented on the lack of system and the defective structure of the Principles, not only attributing these to a lack of orderly design, but also interpreting them as reflecting impromptu and incomplete theoretical reasoning, with the resultant vacillations. Sraffa retraces the history of the publication of the Principles in order to bring out convincingly the analytical considerations which Ricardo would have had in altering the arrangements of his subject-matter. In another instance, too, using a comparison between Ricardo's Principles and Smith's Wealth of Nations with respect to their chapter sequences and subject orderings, Sraffa throws light on the analytical content of Ricardo's critique of Smith. Thus what may appear in these commentaries as the preoccupation of a fastidious perfectionist with purely technical points bears a significance for the understanding of Ricardo's theory.

2 Sraffa's Interpretation of Ricardo

It is mainly Sraffa's 'Introduction' to the Principles that suggested a fresh reading of Ricardo on the basis of the comprehensive material. Ricardo's theory has roused incessant controversy almost from its inception. There is hardly any opinion on any aspect of Ricardo that has passed unquestioned. Controversies have ranged over a wide range of issues, such as

(1) The content of the Ricardian system: What are the central tenets or what forms the central core of his theory?

(2) The structure of his value and distribution theory: is he to be considered as one of the pillars of the classical approach which has a
distinctive structure and standpoint, or is he one of the progenitors
who provided building blocks for the supply-and-demand-based
equilibrium theory?11

(3) The inception of Ricardo’s theory: did he make any original
contributions, or did he essentially borrow theories from others to
use them for the pragmatic purposes of supporting certain policy
conclusions? (see Patten, 1893; Gordon, 1976; Hutchison, 1952).

(4) The reception of Ricardian theory (see, among others, S.
Hollander, 1979; Fetter, 1969; Stigler, 1958). Did Ricardo’s doc-
trines dominate the theoretical scene or did they meet with stiff
resistance during and after his lifetime?

(5) The ‘decline’ of Ricardian economics: did the decline occur at all,
and if so, when?

(6) Ricardo’s method: was he an abstract thinker with a love for para-
doxes who took delight in theoretical speculation on the basis of
‘strong cases’, or was he a man of practical affairs, caring little for
theoretical neatness and completeness? (see, among others, Dunbar,
1887; Marshall, 1920; J. H. Hollander, 1876; Patten, 1893).

(7) The evaluation of Ricardo’s contribution has been equally
diverse. To mention only a few, Schumpeter (1954) considered his
theory an ‘unnecessary detour’; Jevons (1871) argued vehemently
that he had shunted the car of theory onto a wrong line; Marshall,
(1920) believed that his exposition was as confused as his thought
was profound; Marx (1862–3) thought that ‘scientific political
economy’ attained its acme in Ricardo.

The picture of Ricardo that emerges from the Works is of an original
thinker engaged in a constant struggle to formulate a consistent theory
of value and distribution within the framework of analysis handed down
from the Physiocrats and Adam Smith. While Ricardo was conscious of
the fact that he was not trained in the art of literary expression and
expressed his modesty and hesitation on that account several times, he
had a penetrating mind which could grasp the essentials of a logical
argument (as becomes clear from the many exchanges with Malthus)
and he was confident of the correct direction and the meaningfulness
of his questions. More important, he appears often to be sufficiently
aware that he did not possess adequate answers, as in the case of the
‘modifications’ of the labour values needed to accommodate variations
in relative values caused by a variation in the division of produce between
wages and profits, or the connected issue of the properties required of an
‘invariant standard’ corresponding to the theory of value proposed. His
genuine modesty and diffidence in the matter of the literary execution
of his ideas does not inhibit him from stating his case boldly and
persistently. This confidence in his own propositions does not appear
to be born of unyielding doggedness, for he did borrow theories from
others when he found that they fitted suitably into his framework, and
he did modify his opinions when confronted with what he regarded
as superior arguments. The controversy with Malthus was particularly
productive, as often Malthus's objections stimulated Ricardo's ideas towards greater cogency. We shall take up what appears to be Ricardo's theoretical system for detailed consideration in Section 3. Here we shall confine ourselves to the important analytical issues which Sraffa takes up directly in his 'Introduction' to the Principles which provide insights into the rational basis of Ricardo's particular statements, especially those that have been the subject of controversy.

While many of the evaluations of Ricardo have been prompted by the not-uncommon proclivity of theorists to discover in his work happy anticipations of their own viewpoints and perceptions, there remained also an inherent difficulty in the task of interpreting him. For his theoretical efforts in their formative stage involved new concepts or the novel use or interpretation of old concepts. Ricardo was himself conscious of his 'peculiar' opinions and doctrines, the elucidation and modification of which occurred in his correspondence and unpublished notes, as well as his published works. The unique feature of this correspondence has already been remarked upon above. Ricardo's short career in political economy, and his premature death when he was struggling with the problem of value (as testified in the unfinished manuscript on 'Absolute Value and Exchangeable Value') had left many loose ends and abortive attempts at reconciliation of his theory. Difficulty or absence of access to these papers – which now, thanks to Sraffa, are made available – had left room for speculation. Some instances of the misunderstandings about Ricardo's theory originating from this are noted by Sraffa in his 'Introduction'.

It was from the vantage point of a close and careful knowledge of the comprehensive materials on Ricardo that Sraffa reconstructed, in his 'Introduction', the process through which Ricardo's ideas developed. It is by following closely in Ricardo's tracks (the way in which he formulates and approaches the problem of distribution and, through it, of value and the form in which difficulties successively arise and are perceived by Ricardo, and the rationale of the procedures he adopts to resolve the difficulties) that Sraffa seeks to delineate the theoretical structure underlying Ricardo's various propositions and theoretical stances.

3 The Development of Ricardo's Theory of Profits

Sraffa focuses upon the theory of profits as the central and continuing concern of Ricardo and shows that he arrives at the value problem, in the peculiar form it takes in his theory, in the course of his attempts to provide a consistent explanation of the rate of profits and of a definite relation between the share of wages in net product and the rate of profits. This accent on the profits theory and the derivative significance of the value problem are an important reflection of the classical structure of value-and distribution-determination which Ricardo appears to follow. (More on this, in Section 4 below.) This view stands somewhat in contrast to the one that is more commonly held, particularly among
the marginalists, that the significant elements in Ricardo are the theory of rent (or the principle of diminishing returns), and the population doctrine (or the notion of a fixed, subsistence 'equilibrium' wage). Jevons, for example, was to maintain that, among all the Ricardian tenets, the theories of rent and of population were 'scientific in form and consonant with facts', and he saw the theory of rent as giving 'a clue to the correct mode of treating a whole science' (Jevons, 1871 [1971], p. 43). Stigler, writing on the Ricardian theory of value and distribution in an article which was submitted for publication prior to the arrival of the Ricardo volumes (see Stigler, 1952, In 1) considered these two principles as the 'two main strands' and 'pillars' of the Ricardian system. Baumol (1965) saw the 'magnificent dynamics' of the Ricardian system in the tendency to stationary state envisaged by Ricardo, following the tendency to a declining rate of profit with progressive cultivation. Blaug (1958, p. 5) saw the Ricardian approach to economic development, 'broadly conceived in terms of a conflict between tendencies towards increasing or diminishing returns' survive down to the present. Sraffa's account of the history of Ricardo's theory of profits establishes that the explanation of profit, which was first published in the Essay on Profits around 24 February 1815, had been formulated by Ricardo prior to the appearance of the theory of rent in publications by Malthus, West and Torrens.

In February 1814 Ricardo had written some 'papers on the profits of capital' which he had shown to Malthus, Trower and Mill. These papers have not survived, but a summary of their contents, contained in a letter to Trower of 8th March 1814 shows that the theory of profits, which was to appear in the pamphlet of the following year, was already fully developed. (Works, IV, p. 3)

In February 1815, Malthus's pamphlet on rent appeared and Ricardo was able 'to write [his essay] within a few days by using his already developed theory of profits', incorporating Malthus's theory of rent. Ricardo's theory of profits was also formed independently of West's pamphlet on rent, as Ricardo had already mentioned his theory in his letters of 1813 to Malthus and Torrens. Sraffa concludes:

Although Ricardo opens his Introduction with the statement that in treating the subject of profits it is necessary to consider the principle of rent, the fact is that for the previous two years in his letters he had been working out his theory of profits without ever finding it necessary explicitly to mention rent. Indeed, the theory of profits presented in the pamphlet adds little to what was already contained in his letters of 1813 and 1814, before his attention had been directed to the connection between rent and profits. (Works, IV, pp. 7-8)

As Patten (1893, p. 329) observed: 'The law of rent came into Ricardo's system, not as a basis, but as a better proof of a theory already developed.'
SRAFFA'S RICARDO

In the history of economic thought, the debate on the Ricardian origins of the theory of rent has been treated primarily as an issue concerning the priority or originality of Ricardo. Sraffa's concern, however, is to lay bare the logical basis of Ricardo's theory of profits and its relation to the theory of rent.

The importance attached to rent as explained by the diminishing returns (extensive and intensive) in agriculture in the 'Ricardian system', particularly by marginalist interpreters, has had some important consequences for the interpretation of the basis of Ricardo's explanation of profits, and of the structure of Ricardo's theory of value and distribution, in general. Sraffa points out that a consequence of the mistaken popular belief that Ricardo actually invented the theory of rent, is 'that of regarding Ricardo as the originator of the whole marginal theory' (Works, IV, p. 6). In later marginalist theory, the principle of diminishing marginal returns in agriculture was generalized into the law of variable proportions to yield monotonic functional relations between factor-intensity and factor-prices – whereby the 'marginal principle' seen as underlying rent theory was extended to explain all factor-returns. Sraffa (Works, IV, p. 6, fn 1) quotes Clark (1931) as testifying to this development: 'The Ricardian law of rents ... is the first great example of the marginal method, later to become the keystone of the entire Austrian system of economic theory.'

Ricardo was indeed aware of the phenomenon of diminishing returns on land, as observed by Sraffa (Works, IV, p. 5), but in his letters of 1813 and 1814 he had applied the principle only to his theory of profits. In fact, in these letters he discusses how only improvements in agriculture or new facilities for the production of food can prevent an increase of capital from lowering the rate of profits. The theory of rent allowed Ricardo to get rid of rents from the net produce so as to isolate the relation between wages and profits. His discussion suggested a particular relation between the produce and unit costs in the case of agriculture where land was a non-reproducible asset fixed in supply for the economy. This was not generalized by Ricardo to all cases of production, as was done in later theory. Furthermore, Ricardo insisted that rents did not enter price and he did not rely on the phenomenon of 'diminishing returns' to explain the formation of price. Indeed, when Ricardo does attempt to generalize his theory of profits, he turns to the labour theory of value as an explanation of value consistent with his theory of profits, as we shall see below.

A basic principle that Ricardo adheres to in his letters of 1814 and early 1815 is that 'it is the profits of the farmer that regulate the profits of all the other trades'. This principle met strong opposition in Malthus, who argues that the profits of the farmer no more regulate those of the other trades than vice versa. Sraffa points out that 'After the Essay this principle disappears from view, and is not to be found in the Principles' (I, p. xxxi). In Principles, the more general proposition that the productivity on land which pays no rent is fundamental in determining general profits continues to occupy a central position.
Thus the determining principle of the rate of profits appears to have been worked out by Ricardo prior to, and independently of, the theory of rent. The contribution of the explanation of rent appears to have been to allow Ricardo to isolate the part of net product going to wages and profits by eliminating rents. In thus arriving at a determination of the rate of profits, Ricardo appears to have followed the method, known to classical economists from the Physiocrats, of determining the part of produce available for distribution among the revenue-sharers as gross produce minus 'productive consumption', the latter constituting the material means of production and the sustenance of labour required for producing that gross output. Profits were the difference between total product (after eliminating rents) and 'capital advanced' (constituting material means of production and the sustenance of labour), and the rate of profits is the ratio of profits to capital advanced.

Sraffa suggests a 'rational foundation' for the principle of the determining role of the profits of agriculture (clarifying, however, that it is never explicitly stated by Ricardo): namely, that in agriculture the same commodity, corn, forms both the capital and the product, so that the rate of profits emerges directly as a ratio between quantities of corn without any question of valuation. If the other trades then have to yield a uniform rate of profit, under competition, it is the value of other trades that must adjust. Thus in the Essay, at the cost of considerable simplification, Ricardo had been able to demonstrate clearly the relation between profits and wages. Once the wage and the methods of production are 'given' ('given', meaning that the given 'effectual' or social demand for corn fixes the limit to the cultivation (extensive/intensive) and hence determines the method of production which pays no rent), profits are seen as the 'surplus produce' of corn, that is, the residual output after payment of corn wages and corn capital. This rate of profits could also be shown to be 'dependent upon wages' since the rate of profit and wages were clearly inversely related.

Malthus opposed the determining role of agricultural profits by attacking the notion that wages consist of corn alone. Ricardo's attempt to generalize the profits determination brought him to the realization that his theory would need a consistent theory of relative values. Sraffa identifies 'a turning point' in the transition from the Essay to the Principles when, at the end of 1815, having set to work on the Principles, he wrote to Mill: 'I know I shall soon be stopped by the word price.' (Works, VI, p. 348; letter dated 30 December 1815). It is also pointed out by Sraffa (Works, I, p. xiv) that, even in the letters of October and November 1815, when Ricardo was discussing the main headings of the proposed work with Mill, there is no reference to 'value'. This is mentioned for the first time in the letter of 30 December 1815 above. It would seem that Ricardo realized the inadequacy of dealing piecemeal with the question of relative values in particular contexts, as he had done in his previous writings (see Bharadwaj, 1983a).

Several pieces of evidence are offered by Sraffa to show how Ricardo became aware of the need for a theory of relative values for the purpose
of determining profits. Both 'net produce' and 'capital advanced', in the general case, would constitute heterogeneous aggregates. In the post-Essay correspondence, it is clear that while Ricardo quickly acceded to the reasonableness of Malthus's criticism he also attempted to carry forward the argument in terms of the aggregates, on the analogy of corn (Garegnani, 1982). During the post-Essay debate with Malthus, Ricardo realized that he had not made adequate allowance for the altered value of raw-manufacture costs which would be an influence separate from wages on their price. In the debate, questions were persistently raised as to the effects of the increasing difficulty of agricultural production and the consequent rise in corn price and wage on the size of the net product and the ratio of that surplus produce to the whole capital employed. From the terms of this discussion, it is obvious that neither Ricardo nor Malthus had, at this stage, a rigorous perception of the formation of relative prices. The struggle to establish his theory of profits under alternative assumptions concerning the influence of the corn price on manufacturing prices was seen by Ricardo to be leading to a 'labyrinth' of difficulties in 'an endless succession' (Works, VI, pp. 212-14).

The significance of the labour theory of value in this context is seen by Sraffa thus:

In the Principles ... with the adoption of a general theory of value, it became possible for Ricardo to demonstrate the determination of the rate of profit in society as a whole instead of through the microcosm of one special branch of production ... It was now labour, instead of corn, that appeared on both sides of the account - in modern terms, both as input and output: as a result, the rate of profits was no longer determined by the ratio of corn produced to the corn used up in production, but, instead, by the ratio of the total labour of the country to the labour required to produce the necessaries for that labour (Works, I, p. xxxii).

It was inevitable that the question of relative values would emerge demanding explicit consideration, once Ricardo attempted to move away from the early explanation of profits in its primitive, agricultural form. In this early, pre-Essay phase, Ricardo continues to adhere to the Smithian position that a rise in the price of corn leads to a rise in all prices. He did not recognize the contradiction between his theory of profits and the Smithian proposition, since in the case of the primitive agricultural form of the theory, the problem of valuation did not surface. In the Essay some elements in the Principles are foreshadowed, when he states the proposition that no other prices need change as a consequence of the rise in value of corn and measures 'the difficulty of production' by the amount of labour required for production. He does not, however, at this stage, either elaborate or consistently formulate his own theory of value in opposition to Smith. These elements in the Essay are carried forward and, with new additional arguments, developed into a more systematic theory of value in the Principles.
Investigating the influence of a change in wage on relative values, Ricardo was to realize that differences in the composition of the means of production of commodities would create another cause for changes in their relative values. A change in wage would not cause a change in the relative value of commodities unless their conditions of production differed. His attention was particularly drawn to the 'curious effect' which the rise of wage produced on the prices of those commodities 'chiefly obtained by the aid of machinery and fixed capital'.

This theme of the effect of a rise in corn price ran parallel to Ricardo's theory of profits which, however, as we saw earlier, developed initially in a context where Ricardo did not see valuation as an integral problem.

As Sraffa remarks:

The importance which Ricardo came to attach to the principle that the value of a thing was regulated by the quantity of labour required for its production, and not by the remuneration of that labour, reflected his recognition that what his new theory was opposed to was not merely the popular view of the effect of wages on prices but another and more general theory of Adam Smith (of which that effect came to appear as a particular case) – what Ricardo referred to in writing to Mill as Adam Smith's 'original error respecting value'.

(Works, I, p. xxxv)

The adding-up view of Smith prompted him to maintain that, 'as soon as stock is accumulated in the hands of particular persons' and 'as soon as land of any country has become private property', commodities no longer exchange according to the labour entering their production, but their price is arrived at by adding up the wages, profits and rents, and that all three are component parts of price, and hence sources of exchange value. Smith had proceeded from there to give an independent explanation of rents, profits and wages; in particular, the rate of profit was determined by 'competitions of capitals'. With the adding-up view, it was also easy to fall into the error of supposing all prices to rise or fall with a rise or fall in wage. Ricardo, on the other hand, maintains that 'profits depend upon wages', that is, for given methods of production, the rate of profits and the share of wages in net product vary inversely. Ricardo saw, therefore, that Smith's position on prices contradicted his theory of profits.

Ricardo's opposition to Smith was thus not confined to challenging his proposition on the effect of wage variation on prices. A number of critical readers of the Principles discovered an inconsistency in Ricardo's assertion against Smith in the opening chapter, that 'the value of a commodity ... depends on the relative quantity of labour which is necessary for its production, and not on the greater or less compensation which is paid for that labour' (I, p. 11), and his statement in Section IV, in seeming contradiction of above, that the same principle is 'considerably modified' by the employment of machinery and other fixed and durable capital. In that section he agreed that, 'besides the
greater or less quantity of labour necessary to produce commodities', the rise or fall in the value of labour could also be the second cause of variation in relative values.

It is the discovery of Ricardo's letter to James Mill (28 December 1818, now available in the Works VII, p. 377), that reveals the full import and gives an accurate statement by Ricardo of his position. In the letter, answering a misinterpretation of Torrens, he explains that his opposition to Smith is to his theory that [and] 'after stock was accumulated a part (of produce of labour) went to profits, that accumulation, necessarily, without any regard to the different degrees of durability of capital, or any other circumstance whatever, raised the prices of exchangeable values of commodities'. Ricardo, in contrast, maintains that it is not because of the division into profits and wages, but because of two causes alone that exchange values vary: one, the greater or less quantity of labour required and, two, the greater or less durability of capital. He added that 'the former is never superseded by the latter, but is only modified by it'. The influence that variations in wages have on relative prices cannot be independent of the quantity of labour required in their production. This would seem particularly strengthened by the fact that Ricardo attempted to reduce capital to dated labour (or, to labour invested over time); that is, he saw the influence of wage as mediating through the structure of the means of production. Indeed, Ricardo also saw that a change in wage would have no influence on relative prices if the proportion of the means of production to labour was uniform for all commodities. Although this implied that Ricardo would allow for a modification of the principle that the quantity of labour bestowed on the commodity determines its relative value, he would not abandon that principle altogether. In fact, he attempted to redefine the properties of the required 'invariant standard' to accommodate modifications arising because of the 'durability' factor.

Sraffa, in a detailed scrutiny and comparison of successive texts of the Principles, examines a widely accepted hypothesis, disseminated by J. H. Hollander (1904, pp. 455–91) and extended further by Cannan (1929, p. 185) — that Ricardo, over the successive editions, weakened over the labour theory of value. Sraffa shows that all the evidence in support of this hypothesis arises because of certain misunderstandings of changes in the text and that, although no essential change was made in successive editions about the rule which determines values, some important changes occurred in connection with the choice of an invariable measure of value.

The role that labour values played in Ricardo's theory of profits and Ricardo's notion of an 'invariant standard' is better comprehended when we follow the logical trail in Ricardo, as delineated by Sraffa. In the determination of the rate of profits, Ricardo appears to have operated in terms of the aggregates of net output, wages and capital. In the corn case, these aggregates were conceived in homogeneous terms. If the relative values were proportional to labour embodied (i.e., the labour theory of value applies), labour could replace corn as a measure independent of
the division of produce between wages and profits. Ricardo realized that the differences in the structure and composition of the means of production of different commodities imply that variations in relative values will be occasioned by a change in wage, even when methods of production remain the same. As Sraffa observes:

Even though nothing has occurred to change the magnitude of the aggregate, there may be apparent changes due solely to change in measurement, owing to the fact that measurement is in terms of values and relative values have been altered as a result of a change in the division between wages and profits. (Works, I, p. xlviii)

Relative values thus could change for two reasons: one, because of a change in the method of production and, second, as a result of a change in wage. The first cause of variation could be handled by the labour theory, if the second cause did not operate or was held in abeyance. It was the presence of the second cause which called for a 'modification'. Further, the influence of a variation in wage also worked through the relative conditions of production, and hence the problem which interested Ricardo was to find a commodity as a measure of value which would be invariant in value with respect to changes in distribution of the produce, since, if a rise or fall of wages by itself brought about a change in the magnitude of the social product, it would be hard to determine accurately the effect on profits (Works, I, p. xlviii). A similar problem also appeared in the case of the measurement of capital, the other heterogeneous aggregate entering the determining equation of the rate of profits (Works, I, p. xlix).

The preoccupation with the effect of a change in wages, the simultaneous adherence to labour theory of value and the search for the 'invariant standard' in Ricardo have thus to be understood in the light of his theory of profits. The notion of the invariant measure is also peculiar to Ricardo's theory of value. The problem of discovering an 'invariant standard' was not primarily an empirical one, of finding an actual commodity as a measure. The problem occurred to Ricardo as mainly a theoretical question, namely, defining the conditions a commodity must satisfy in order to be construed as 'invariable' in its value with respect to a change in distribution. The search for such properties that ensure invariance was identical therefore with the discovery of the causes of variations in value. Ricardo recognizes this explicitly in his unfinished manuscript, 'Absolute Value and Exchangeable Value', one of Sraffa's important finds.14 The problem of the cause and measure of value appeared to have been identified in this case. Further, as a result, the properties of invariance also relied upon the particular explanation of value. Thus, in Ricardo, there was an appropriate invariant measure corresponding to the particular theory of value he proposes: when he adhered to the simple labour theory of value, the 'invariant standard' was defined as a commodity requiring constant quantity of labour at all times and all circumstances. This was the standard adopted in the
first two editions. In the third, making allowance for the 'modifications' introduced in the labour-value principle, the standard adopted was one 'produced with such proportions of the two kinds of capital [i.e., fixed and circulating capital] as nearest to the average quantity employed in the production of most commodities' (I, p. 45). The close connection between the theory of profits and the theory of value, which Ricardo sought to handle analytically, is evident from the above.\textsuperscript{15}

Another element in Ricardo's theory that has caused puzzlement and misunderstanding is the 'curious phrase', 'price of wages' which Ricardo removed in several cases from the second edition of Principles, and eliminated further in the third edition (Works, I, p. li). The expression is in places treated as interchangeable with 'price of labour', or simply 'wages'. Sraffa explains:

... it must originally have been related to the expression 'real value of wages', which he uses in explaining the peculiar sense in which he is to be understood when he speaks of the rise or fall of wages: namely as referring to the proportion of the total product going to labour, and not to the absolute quantity of commodities received by the labourers. (I, p. lii; italics in original)

This peculiar usage was criticized both by Malthus (see Works, I, p. 19) and Marshall (1920, p. 350). It also led to misinterpretations of Ricardo's theory of profit when the theory was charged with being only tautologous – the share remaining for profit inversely varying with the share of wages. Ricardo, in fact, sought to relate the rate of profits with the share of wages in net product. This form of representing wages is also characteristic of the surplus-based determination of the rate of profit of the classical theorists, noted earlier (see p. 120 above).

What we learn from Sraffa's insightful commentaries is that Ricardo had a theoretical system within which he was seeking to achieve consistency between his theories of profit and of relative values. Sraffa's interpretation of the development of Ricardo's ideas appears to be consistent with the available evidence; it portrays Ricardo's own struggles to devise conceptual tools suitable for the problem formulated by him.\textsuperscript{16} Sraffa provides a rational basis – an analytical context and meaning – to Ricardo's concepts which were often deplored as 'new and unusual', and to Ricardo's seeming inconsistencies, contradictions and swift changes in his opinions. Many saw these as simply errors, a lack of systematic thinking, or attributed them to Ricardo's wrong-headedness and confused thought, although recognizing him as 'able' or 'profound'. What emerges from Sraffa's reading of Ricardo is that, untutored and technically ill-equipped as Ricardo was, he was persistently striving to attain consistency within a theoretical system. This system is distinct from the one that became dominant after the 1870s with the rise of the supply-and-demand-based equilibrium theories and, often, inconsistencies attributed to Ricardo arise because of interpreters imposing their different theoretical system on his theory.
Sraffa's interpretation of Ricardo has stimulated controversy over wider theoretical issues concerning the development of economic theory, particularly after the publication of *Production of Commodities*, in which Sraffa seeks to revive the classical standpoint. Minor differences notwithstanding, one broad view (found, among others, in Dobb, 1973; Roncaglia, 1974; Harcourt, 1975; Meek, 1977; Bharadwaj, 1978a; Garegnani, 1984) is that the classical political economy has a distinct theoretical structure and approach which originated with the Physiocrats, was elaborated and refined by English political economists from Smith to Ricardo, and was critically extended in many different directions by Marx. The central notion characteristic of these theories is of 'social surplus' or 'net product' which is defined as the total produce of the economy minus the requirements of productive consumption (i.e., the material requirements of production and for the sustenance of labour). The economy is described as in a 'natural' state (as an average, observed position), that is, a state in which the economic activities (of production, distribution and exchange) could be reproduced. The determination of the size of the surplus, its distribution among the revenue-classes and the accumulation of this surplus are the central concerns of the theory. The social surplus, in a particular natural position of the economy, is derived by taking as 'given' the following data: (a) the social product (i.e., the gross product); (b) the methods of production; and (c) the wage with its constituent quantities of commodities. The produce going to shares other than wages (i.e., 'surplus') was treated as a residual by deducting the productive consumption from social product. As Garegnani (1984, p. 294) points out:

The peculiar feature of these theories – the determination of the shares of the product other than wages as a residuum or 'surplus' – thus has its logical basis in the consideration of the real wage and social product as being determinable prior to these shares.

The determination of the wage from 'outside' is crucial to this surplus-based theory of value and distribution.

This way of determining the rate of profits and prices does not rule out considering, at a different stage of analysis, the interactions among wage, methods of production and social product. The determination of these 'quantities' is germane to the determination of the 'surplus', whose 'distribution' is then analysed, at a separate stage, given the 'quantities'. Such an approach does not imply that the *value* of social product or of surplus is considered independent of prices. As is clear from the discussions in Ricardo, an important problem that he faced was precisely in the simultaneous determination of the rate of profits and relative values which he misidentified as a problem of circularity.17 Ricardo's successive attempts to formulate his theory of profit in a simple agricultural form and then to generalize it by using the labour theory
of value, and modifying it further, using the ‘invariant standard’ reflect successive elaborations of such an approach (see Garegnani, 1984).

An interpretation of Ricardo which differs from the above, namely, that Ricardo as well as Smith were among the progenitors of the supply-and-demand-based theory, was advanced by Marshall (1920). His position and interpretations continue to be influential. Marshall, unlike Jevons and Bohm Bawerk who believed that the Ricardian system should be discarded, claimed a continuity with Ricardo and Mill. In the famous Appendix I of Principles of Economics, Marshall offered a generous interpretation: ‘... his [Ricardo’s] doctrines though very far from complete, are free from many of the errors that are commonly attributed to them’. Proceeding to complete Ricardo’s ‘profound but incomplete’ reasoning, Marshall suggested that in the discussion of ‘Value and Riches’ Ricardo was ‘feeling his way towards the distinction between marginal utility and total utility’. ‘Ricardo was aware’, he claimed, ‘that commodities fall into three classes according as they obey the law of diminishing, of constant, or of increasing returns’, but justified himself in assuming provisionally that they all obeyed the law of constant return (1920, p. 814).

Marshall attributed to Ricardo a ‘cost of production theory’, arguing, however, that:

he knew that demand played an essential part in governing value, but that he regarded its action as less obscure than that of cost of production, and therefore passed it lightly over in the notes which he made for the use of his friends, and himself; for he never essayed to write a formal treatise; also that he regarded cost of production as dependent – not as Marx asserted him to have done on the mere quantity of labour used up in production, but – on the quality as well as quantity of that labour; together with the amount of stored up capital needed to aid labour, and the length of time during which such aid was invoked. (1920, p. 503)

Ricardo’s emphasis on the cost (supply) blade of the scissors was due, in Marshall’s view, to the implicit assumption of constant returns (which is also constant costs, in Marshall’s partial equilibrium frame). Marshall in fact ignored altogether the role which labour theory played in Ricardo. Stigler (1958) denies that any analytical role is played by the labour theory and sees it more as an empirical principle, emphasizing the predominant role which wage costs play in the costs of production. Stigler, too, holds that Ricardo had a cost-of-production theory. Cassels (1935) similarly argues that Ricardo’s concern was much more with the variations in relative prices occasioned by variations in wages, and Ricardo’s argument was to hold that these variations are proportional to the labour embodied. In Cassels’ view the labour-value principle was an empirical one concerned with the ‘variations’, and Ricardo held not a labour theory but a cost-of-production theory of prices. These interpretations of labour values as a purely empirical principle go against the evidence, because Ricardo emphatically asserts
that commodities exchange according to the relative quantity of labour which is necessary for their production, and not on the greater or less compensation which is paid for that labour, and the hypothesis that this position of Ricardo 'weakened' over successive sections and editions is convincingly refuted by Sraffa (see above). Further, Ricardo discussed the influence of variations in wages on relative values as a 'second cause' which necessitated modification in the labour-value principle. His concern regarding the influence of wage variations on prices was derived, as we have seen, from his particular theory of profits.

Samuel Hollander's voluminous book on The Economics of David Ricardo (1979) has renewed the older controversies, challenging Sraffa's interpretation, particularly of what is called 'the corn model'. Hollander sees 'the essence of the Ricardian contribution and the significance, indeed the primary objective, of Ricardo's analytical work' in his 'fundamental conception' that 'wage rate increases are non-inflationary and at most generate an alteration in relative prices within limited bounds' (1979, p. 7). This leads Ricardo to challenge the Smithian position that the price of corn regulates the price of all other things. Given that this is the central theme of Ricardo, Hollander argues that Ricardo had worked out his theory of profits in terms of a relation between the (money) wage and the rate of profit from early on (pre-Essay), and hence the 'rational foundation' provided by Sraffa to the Essay (and hence, the later development) has no exegetical or analytical basis. We may not pursue here the extensive controversy that has followed (see S. Hollander, 1973; Eatwell, 1975; O'Brien, 1981; Garegnani, 1982; Roncaglia, 1982; Bharadwaj, 1983a; and replies by S. Hollander, 1975, 1982, 1983; and Caravale 1985). Hollander also argues that Ricardo's concern was only with an empirical theory of value and sees no substantive role for the 'sophisticated invariant standard' of the third edition, since the 'invariant standard' of the first two editions had already accomplished its analytical purpose of refuting the Smithian proposition. Hollander fails to show how Ricardo could have established the relationship between the money wage and relative prices for his theory of profit. He also fails to explain why, having established that general relation prior to the Essay, Ricardo needed to revert to the strong case of the 'corn model' where the profits of the farmer determine the general rate of profits, or how Ricardo could have held to the determining role of the farmer's profit while accepting the Smithian proposition, and why this farmer's profit principle disappears in the Principles. Hollander's interpretation leads him, like Marshall, to resort to discovering a difference between 'Ricardo's formal statements' and 'intentions'. It fails to explain the 'peculiarities' of Ricardo's analytical constructions. By contrast, Sraffa's reading of Ricardo is consistent with the Ricardo papers available to us.
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1 Hereafter referred to as *Works*. References to the *Works* are indicated by volume number in roman numerals followed by page number.

2 E. A. G. Robinson (1951, p. 848) notes in his review of *Works*, Vols I and II: ‘It was in 1925 that the Council of the Royal Economic Society first agreed in principle to a proposal to produce a definitive edition of Ricardo and in 1930 that it was agreed, on Keynes’s suggestion, to ask Mr Sraffa to take on the responsibilities of editorship.’

3 ‘Ricardo was a fortunate man. He lived in a period – then drawing to a close – when an untutored genius could still make economic science. He lived in a nation where two great problems, inflation and free trade gave direction and significance to economics. And now 130 years after his death, he is as fortunate as ever; he has been befriended by Sraffa – who has been befriended by Dobb’ (Stigler, 1953, p. 302).

4 Hutchison (1952), reviewing Sraffa (1951, *Works*, I), acknowledged that ‘there can be no edition in English of the complete works of any economist which remotely begins to compare with this edition of Ricardo’ but raised a certain ‘querulous and insidious’ question: ‘How far does the actual content and influence of these works measure up to this unique position’ which Ricardo acquires in the history of economics. Hutchison’s own evaluation, contrary to our own, suggests that Ricardo’s significance has been overrated.

5 E. A. G. Robinson (1951) writes: ‘Mr Sraffa’s preface which runs to a little over sixty pages, is a model of what such a preface should be. He is concerned wholly and exclusively with Ricardo, with Ricardo’s own controversies with his contemporaries, and with anything in Ricardo’s own letters and writings which can contribute to our ability to understand what Ricardo was trying to say. He is not concerned to provide us with ready-made judgements as to whether it was Ricardo, or Jevons, or neither, who “shunted the car of economic science on to a wrong line”. He does not provide us with “Ricardo in modern dress”, with Ricardo’s ideas translated into the terminology which most of us can more readily think today. But just so far as he can help Ricardo to speak to us for himself, and in his own language, he gives us every possible assistance ...’ (p. 850).


8 Marshall thus sought to interpret Ricardo ‘generously’: ‘When his words are ambiguous, we must give them that interpretation which other passages in his writings indicate that he would have wished to give them’ (1920, p. 813). Consequently, Marshall saw, in Ricardo, anticipations of his own theory (see p. 127 below).

9 The reception of Ricardo’s theory through the hands of James Mill appears to have also had other consequences. As Ashley (1909 [1965]) observes: ‘For good or for ill ... John Mill’s economics remained those of his father down
to the end of his life ... it was through James Mill, and, as shaped by James Mill that it [the 'deposits' of doctrines of Ricardo, Malthus, Adam Smith and the French Physiocrats] chiefly reached his son' (pp. vii–ix). Marshall, in turn, claimed to have brought rigour and consistency to Mill's ideas, affording them a 'mathematical form'. It was precisely the beginnings in Mill of deviations from Ricardo's theory of value and distribution that received extensions and refinements in Marshall's hands (see Bharadwaj, 1978b; chapter 6 below).

10 One or other feature of the 'Ricardian system', namely, the law of diminishing returns, the population principle, the fixed subsistence wage, Say's Law, the 'stationary state', is identified as a main characteristic of Ricardian theory.

11 While Sraffa, Dobb and some Marxist writers have recognized a divide in theory, with the supply-and-demand-based theory emerging after 1870 as an alternative, with a distinctly different structure of theory to explain value and distribution, Marshall maintained that there was a continuity in the development of economic theory and that Ricardo did not have any systematic, separate theoretical standpoint.

12 This, fixation of the limit to the cultivation by demand, has often been interpreted as 'demand' entering into the determination of value in Ricardo (see, e.g., Samuelson, 1959). However, what Ricardo needs is a 'given effectual demand', not fixed or invariable demand. Changes in effectual demand occur due to variations of social and economic forces and, unlike the demand schedule in marginalist theory, do not rely solely upon relative quantity changes brought about through 'substitution' in response to changes in relative prices.

13 Referring to Ricardo's oft-quoted passage from his letter to McCulloch of 13 June 1820 (quoted also by Sraffa, Works, I, p. xxviii): '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', Hutchison (1952, p. 420) maintains that 'in his whole original approach his problem of value was, for Ricardo, quite separate from his problem of distribution' and this, Hutchison maintains, is 'unMarxian'. Also, the sequence in which Ricardo proceeds from the distribution to the value problem, Hutchison holds, differentiates him from both the Marxian and the neoclassical way of treating value and distribution. However, when one follows Sraffa on the trail of Ricardo, the form in which the value problem takes in Ricardo's surplus-based explanation of profits and its origin becomes clear. It also allows us to see how Marx essentially adopts the same approach for his theory of distribution, but attempts to resolve, in a different way, the same difficulty caused by deviations of labour values from prices: Marx sets up the 'transformation problem', while Ricardo proceeds in pursuit of his invariant standard (see Garegnani, 1984).

14 This unfinished manuscript is of great value for clearing up certain misunderstandings about Ricardo's position on value. It outlines more clearly the differences among Ricardo's, James Mill's, McCulloch's and Torrens's attempts to deal with 'capital', and indicates the difficulty, as seen by Ricardo, in separating labour and time as independent causes of value. While Ricardo did not succeed in discovering the 'invariant standard' in this last work, he provided clues to the analysis of the problem of variations in prices effected by variation in wages which have been explored by later scholars working on the 'transformation' problem.
15 See note 13 above.
16 It is to the credit of his ingenuity that Ricardo recognized, in principle, the interdependence between distribution and exchange values but, not having a clear conception and formulation of a simultaneous system of price relations, he looked upon the problem as one of circularity. His peculiar procedure—criticized by Marx—of deriving changes in relative values consequent upon a change in wage (by first presuming an inverse relation between wages and the rate of profits and then using the rate of profits corresponding to the altered wage to deduce changes in exchange values) reflected Ricardo's difficulty in handling simultaneity. His proposal to construct the 'invariant standard', even if unsuccessful, was an attempt to provide an ingenious device to overcome the same difficulty.
17 cf. note 16 above.
18 Ricardo's remarks in the Notes on Malthus (Works, II, p. 42), 'By cost of production, I invariably mean wages and profits' and, in Principles [Works, I, p. 47], 'Mr Malthus appears to think that it is a part of my doctrine, that the cost and value of a thing should be the same; -- it is, if he means by cost, "cost of production including profits" are quoted to support that he had a cost-of-production theory. Our discussion on Ricardo's opposition to the 'adding-up' view of Adam Smith clarifies that, while Ricardo would agree to a definition of 'natural price' or 'value' as cost of production including profits, he would not consider profits as determined independently of wages and constituting an independently determined component of value.
19 Sraffa (1926) was to show that, within the premises of Marshall's partial equilibrium theory, the only assumption consistent with Marshall's supply schedule (which was conceived of as independent of demand) was that of constant returns. Marshall deemed the case of constant costs as purely accidental arising out of the balancing of the tendencies to increasing and decreasing returns.

References: Chapter 5

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