A Comparison of the Neo-classical Price Theory with the Labour Theory of Value, with an Attempt to Enhance Them into an Integrated Theory of Value and Price**

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1. Objective and Scope

Many confusion has arisen on the costs of production, profits, interests in the neo-classical doctrines of many contemporary writers. This study firstly aims to clarify the above confusion. Secondly, it aims to compare the concepts of *the long-run equilibrium price*(i.e., *full costs*[1] or *full competitive minimum price*[2]) with the concepts of the *natural price*,[3] the *central price*[4] or *the prices of production*[5] advocated by those who set up their economic doctrines on the basis of the labour theory of value, such as Adam Smith, David Ricardo, Karl Marx and their followers. Thirdly and finally, this study aims to reach a conclusion that the neo-classical doctrines and the labour theory of value may be enhanced to an integrated theory of value and price through the above examination and to clarify that the concept of long-run equilibrium price is virtually similar to the concept of *natural price* or *prices*

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1) Donald S. Watson, *Price Theory and Its Uses*, 3rd ed., Houghton Mifflin, Boston, 1972, pp. 171-172.

2) Paul M. Samuelson, *Economics*, 10th ed., McGraw-Hill, New York, 1976, pp. 472-74.

3) Adam Smith, *The Wealth of Nations*, Edwin Cannan ed., Modern Library, 1776, Book I, Chap. VII, p.55.

4) Ibid., p. 58.

5) Karl Marx, *Capital*, Vol. III, trans. Untermann, Kerr ed., Chicago, 1909. p. 186: Maruice Dobb, *Theories of Value and Distribution Since Adam Smith*; *Ideology and Economic Theory*, Cambridge University Press, London, 1973, p. 156. Maurice Dobb states here, "Pices of Production were defined by Marx as the Cost-Price(equal to the wage cost *plus* the elements of constant capital entering into output) plus the average or normal rate of profit on the capital employed."

of production.

The paper thereby attempts to find a way to *de tente* conditions in the long-lasting theoretical warfare between the neo-classical doctrines and the labour theory of value.

2. The Concept of Opportunity Costs

The neo-classical theory argues that the efficiency of various resource combinations is determined by the level of the costs of production.[6] The costs of production mean the sum of value of the factors required for production of certain goods (or services), which include:

1) factor costs, such as wages, rents and interests.
2) depreciation of capital goods.
3) insurance costs to cover risks.
4) taxes and duties.

Those costs mentioned above are called *accounting costs, business costs*, or *explicit costs*, which the businessmen actually pay out and record in his accounting books as they occur.

The neo-classical doctrine asserts that, besides the above explicit costs, there are *imputed costs* or *implicit costs* which are to be included in the costs of production. These imputed costs or implicit costs are generally called *opportunity cost elements.*[7]

The neo-classical doctrine regards the concept of the opportunity cost as one of the most important ones among many of economic concepts. The neo-classical writers assert that without referring to the concept of the opportunity costs one can say nothing about economy or about efficiency.[8]

Richard G. Lipsay and Peter O. Steiner explain this concept as follows:

> An old Chinese merchants proverb says: "Where there is no gain, the loss is obvious". The economic sense of this proverb is that the merchant who shows no gain has wasted his time······time that he could have used in some other venture. He has neglected the opportunity costs of his time.

It would be readily apparent from the above explanation that the concept of opportunity costs is based on a psychological and phenomenal concept, on

6) Richard H. Leftwich, *The Price System and Resource Allocation*, 5th ed., Dryden Press, Hinsdale, Ill., 1973, p. 166: Richard G. Lipsay and Peter O. Steiner, *Economics*, 3rd ed., Harper and Row, New york, 1972, p. 173.
7) Richard H. Leftwich, *op.cit.*, p. 164.
8) The opportunity costs are called 'alternative costs' in another expression.
9) Richard G.. Lipsay and Peter O. Steiner, *op. cit.*, p. 173.

which most of neo-classical propositions are constructed.

Historically speaking, the term *opportunity costs* was first used by H. J. Davenport(1861-1931)[10] and others, but its origin reaches so far as to the Austrian School, especially to F. v. Wieser (1851-1926).[11]

F. v. Wieser is known as a successor to Carl Menger's *theory of imputation.* Wieser advocated so-called *Wieser's law,* which asserts that the costs of producer's goods with a certain use are measurable by the opportunity costs, the indirect utilities which expected to gain through the use of it to an alternative use. By this way of exposition, Wieser tried to establish an integrated principle which tried to provide coherent explanation on both costs and prices based on *the subjective* and *psychological* utility doctrine.[12]

It might now be readily apparent from the above that the concept of opportunity costs stems from the marginal utilities theory of subjective nature, and that this concept came up against the cost concepts of the classical writers, such as Adam Smith and David Ricardo, who believed that the cost of production is to be the magnitude of labour poured in the production……i.e., the *real cost.* Furthermore, the concept of opportunity cost is in antagonism against that of real cost (or pain cost or money cost) or the cost of production of Alfred Marshall. This antagonism is readily apparent from the controversies between A. Marshall's followers and the supporters of the concept of opportunity costs.[13]

The first and foremost question raised about the concept of opportunity cost is that the costs of commodity A are not calculated with the direct costs of alternative goods. From this, this concept inevitably falls into a kind of vicious circle of reasoning, in the sense that the costs of commodity A can be computed only by assuming the costs of alternative commodity B, and *vice versa.* Despite these logically weak points, the neo-classical doctrine sticks to the concept of opportunity costs, for they think of this as one of the most convenient concepts with which to explain the scarcity principle as well as the principle of choice. Furthermore, as a matter of practice, the concept of opportunity cost has been used to calculate the alternative interests for self-

10) H. J. Davenport, *Economics of Enterprise,* 1913, p. 58.

11) F. V. Wieser, *Ursprung und Hauptgesetz der wirtschaftlichen Wertes,* 1884: Ditto, *Der natürliche Werth,* 1889.

12) Nobufumi Kayō, "Kikai Hiyo Gainen-no Gimmi (Examination of the Concept of Opportunity Costs)" Keiji Kamiya ed., *Keizai Hatten-to Nōgyōmondai,* (*Economic Development and Agricultural Problems*), Iwanami-Shoten, Tokyo, 1959, pp. 224-223: Maruice Dobb, *op.cit.,* p. 193.

13) L. Robbins. "Remarks upon Certain Aspects of the Theory of Costs" Economic Journal March, 1934

owner's land and capital as well as to appreciate the costs of family labour inputs, especially in calculating the costs of agricultural products produced by the small family farmers. From these facts, the concept of opportunity cost seems to be somewhat useful in economic analysis, in spite of its logically weak points. In using this concept we should not, however, fail to recognize that the nature of this concept has a limitation in that it is a subjective and psychological one.[14]

3. The Concept of Full Competitive Minimum Costs (or Full Costs)

As stated above, the money costs recorded in the books of firms are called explicit costs, accounting costs or business costs, which include every expenses that the businessmen should record in his accounting books.

The neo-classical doctrine, however, introduces here another cost element and thinks it necessary to add the following opportunity costs to the above direct expenses:

1) interests to be paid to its own paid-in capital.
2) normal profits to be reserved for its own paid-in capital.
3) salaries to be reserved for the owner-manager.

A clear-cut notion of this kind is found in Donald S. Watson's statement, reading as follows[15]:

> To define the *full costs* of a firm, two additions to business expenses must be made. They are the alternative or opportunity costs of the firm and *normal profits.* The opportunity costs of the firm include interest on the funds invested in the firm by its owners and the value of the labour services of the entrepreneur, if he works in the firm and if he receives no salary as a business expenses. Normal profits are an additional amount, sufficient, but just sufficient, to induce the entrepreneur to continue to produce the same product, given the uncertainties he must face. Why are normal profits a "cost"? They are a cost of a commodity because, unless the entrepreneur expects to receive in the long-run at revenue that will cover his business expenses, his opportunity costs and some minimum in addition (i.e., normal profits), he will not plan to produce the commodity in question. Part of those full costs is a minimum inducement to producers. ---The minimum inducement includes normal profits. The minimum excess of revenues over costs that is common to many industries can be taken as an empirical counterpart of normal profits.[16]

14) Chong Hwan Chu, "Shin-Kochunhakpaui Saengsanbi-gaenyum, "On the Concept of Costs of Production in the Neo-classical Doctrine," *Dongguk Journal,* No.14, Dongguk University, Seoul, 1975, pp. 201-202. This dissertation reappeares in: Chong Hwan Chu, *Kyeongjaehak-Gaeron(An Introduction to Ecnomics)*, Ilcho-Gak. Seoul, 1977, pp. 194-195.

15) Donald S. Watson, *op. cit.*, pp. 171-172.

16) Norman R. Collins and, Lee E. Preston "Price-Cost Margins and Industry Structure", *Review of Economics and Statistics,* Vol. LI, No. 3, August 1969, p. 271.

In this respect, Paul A. Samuelson explains the importance of the so-called *full cost* in relation to the long-run Break-even equilibrium:

P=MC=Minimum AC, in long-run equilibrium of zero excess profits.[17]

There is, then, a critical "Break-even point" below which long-run P cannot remain if I am to stay in this business. If every other firm were exactly like me, the long-run supply would dry up completely below this critical Break-even level which covers all costs of staying in business---.

Long-run Break-even condition: This comes at a critical P where the identical firms just cover their full competitive costs. At lower long-run P, firms would leave the industry until P had returned to the critical equilibrium level: at higher long-run P new firms would enter the industry, replicating what existing firms are doing and thereby forcing market price back down to the long-run equilibrium P where all competitive costs are just covered.

Thus,

P=MC=minimum competitive costs, the long-run Break-even equilibrium.[18]

It has now become clear in the neo-classical doctrines that the full competitive minimum costs in the long-run Break-even equilibrium condition include the *normal profits* to the firm, the *interests* reserved for the paid-in capital of the firm and the *business costs*: and every analysis on the costs and prices developed by the neo-classical teachings are based on the above notions.

For further reference on the *full costs*, Donald S. Watson's following illustration is to be noted.

The full costs of a firm are conventionally divided into *variable costs* and *fixed costs* Although economic theorists are rarely explicit about it, fixed costs also include opportunity costs and normal profits. Fixed costs so defined include, therefore, more than the everyday business notion of overhead expenses.[19]

4. The Concepts of Profit in the Neo-classical System

The concepts of profit are diversified so much among various school of economics. This diversification seems to be brought about due to the differences. in definitions of the costs as analyzed in the foregoing section of this study.

The are, of course, a generally accepted notion on profit (total revenue minus costs). But the costs are defined in various ways as the doctrines are different, and hence the concepts of profits are defined in various ways.

In the Schumpeterian system, entrepreneur's profit is defined as the revenue

17) Paul A. Samuelson, *Ecnomics*, 10th ed., McGraw-Hill, 1976, p. 470.

18) *IbId.* p. 472.

19) Donald S. Watson, *op.cit.*, p. 172.

exceeding full competitive minimum costs in the long-run Break-even quilibrium under full competition. He said the entrepreneur's profit is zero under full competition. To be more exactly, in the Schumpeterian system, the profit is confined to the excess profit that exceeds the normal profit, which in turn could be obtained as a compensation to the entrepreneur's innovation on technology.[20]

In my opinion, the concept of profit under Schumpeterian system is misleading, since there is no logical reason to exclude the normal profit out of the profit as a whole. In this connection, Professor Watson's definitions on profit are somewhat more clear-cut and reasonable than those of the Schumpeterian system. Watson says:

> Profits always mean revenue minus costs. Different contexts require different cost concepts. Revenue minus full costs will be called *net profits*. Full costs belong to the long-run, and so do net profits. Some economists refer to net profits as pure profits or economic profits. Revenue minus business expenses can be called business profits because this is the profit concept of the accountants and of the businessmen·······.

Table 8-1 presents the definition of costs and profits in form.

Table 8-1: Revenue, Costs and Profits.

Revenue minus business costs = business profits ··································(1)

Revenue minus variable costs = net revenue ·······································(2)

Revenue minus full costs = net profits ··(3)

Business costs + alternative costs + normal profits = full costs ·················(4)

Fixed costs + variable costs = full costs[21]

From the above Watson's definition on costs and profits, we can deduce the following calculations:

Revenue minus business costs = business profits ·························(1)

From Equation (4),

Full costs − (alternative costs + normal profit) = business costs ······(5)

(Revenue − full costs) + (alternative costs + normal profit) = business profits···(6)

Accordingly,

Net profits + alternative costs + normal profits = business profits ···(7)

Then, what was the reason that the neo-classical writers, as Professor Watson did, felt it necessary to classify different profit concepts? It seems to me that these different definitions on profit in different contexts are necessary from the standoint of businessmen and from that of no others. Watson' sdefi-

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20) Joseph A. Schumpeter, *Theorie der wirtschaftlichen Entwicklung*, Teil I, 1912.

21) Donald S. Watson, *op. cit.*, p.174.

nitions on different contexts of profits, therefore, seem to be reasonable, as far as the current capitalistic society is run by the businessmen, who are definitely influencing the process of price formation by their decisions based on the profit maximization principle. The reasonability of the neoclassical defini tions of profits, however, will not be sustained from other points of view as mentioned later in this study.

As we can see from the above Equation (7), business profits consists of three elements; net profits, alternative costs and normal profits. This means that alternative costs and normal profits, which constitutes partial items of *full costs*, are not to be classified into costs themselves in their nature, but as partial segments of business profits. In other words, in the neo-classical system, profits and costs are confused with one another.

5. Some Confusions in the Neo-Classical Concepts of Profit and Interest

On the other hand, a conceptual confusion also appears between the concepts of profits and interests in the neo-classical theory. According to this theory, the rate of interest tends to be equal to the rate of the marginal physical products of capital. This proposition is known to be advocated on the basis of Euler's theorem. This theorem states that:

Total product$=$L$\times$Mppl$+$C$\times$Mppc

This equation means that total product (of a firm, and industry, or entire economy) equals the quantity of labour L, multiplied by the margina plhysical product of labour Mppl, plus the quantity of capital C, multiplied by its marginal physical product Mppc. The significance of the theorem is that no one is exploited…… in competitive equilibrium with constant returns, where, price equals full competitive minimum average cost, the firm's cost curve at that point being horizontal.[22]

The problem lies in the fact that the neo-classical doctrine advocates that nothing is left after the total products has been divided among factors as wages and interests in proportion to the marginal physical products of each factor; hence there is no room for profit to be reserved to the firm.

Joan Robinson and John Eatwell made a comment on the marginal productivity theory, as follows:

> John Bates Clark (1847-1938) in the United States had none of Marshall's hesitation and reservations. He proclaimed the 'law of final productivity' which, under

22) *Ibid.*, p. 482.

> free competition, tends to give to labour what labour creates, to the capitalists what capital creates, and entrepreneurs (businessmen) what the coordinating function creates. (*The Distribution of Wealth*, Macmillan, 1899, p.3)
>
> There are some difficulties about the marginal productivity of capital (let alone the coordinating function). Capital is embodied in capital goods produced means of production such as machinery. Now, equipment embodies the technology which makes labour productive. How are we to find a separate productivity for capital goods? Moreover, interest is not paid to machinery but to owners of wealth who have lent money to businessmen. What is the relation between loans of money and the assumed 'productive function' of 'capital goods'? The analysis was not at all clear, but the metaphysic was pleasantly soothing.[23]

John Robinson and John Eatwell further states:

> This doctrine, of course, is purely circular. It states that, when a businessmen maximizes his profits in a particular market situation, he is combining various factors of production in such a way that he could not make more profit by combining them differently.[24]

As a matter of fact, the confusion between profit and interest was brought about by the confusion between 'capital' and 'capital goods'. On this Thorstein Veblen (1857-1929) observed in a review of J.B. Clark's book, as follows:

> Here, as elsewhere in Mr. Clark's writings, much is made of doctrine that the two facts of 'capital' and 'capital goods' are conceptually distinct, though substantially identical. The two terms cover virtually the same facts as would be covered by the terms 'pecuniary capital' and 'industrial equipment'......
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> This conception of capital as a physically 'abiding entity' constituted by the succession of productive goods that make up the industrial equipment, breaks down in Mr. Clark's own use of it when he comes to speak of the mobility of capital; that is toa sa, so soon as he makes use of it......[25]

The same confusion on the concepts of interest and profit appears also in A. Marshall's system. According to A. Marshall's terminology, the long-run interest rate is defined as being identical with the profit to capital. Furthermore, the terminology, 'the rate of profit' is often used so as to imply the incomes paid to *rentiers* as an 'awards to waiting'.

It is surprising that the same kind of conceptual confusion is being repeated in modern writers even after John M. Keynes had cleared up the confusion on the terminologies presented by the neo-classical writers. According to Keynes, profit is what a firm is hoping to get from an investment, while interest is what it has to pay on a loan. The former refers to 'capital equip-

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23) Joan Robinson and John Eatwell, *An Introduction to Modern Economics*, Mc Graw-Hill, London, 1973, p.42.

24) *Ibid.*, p.41.

25) Thorstein Veblen, *The Place of Science in Modern Civilization, and Other Essays*, Viking Press, 1919, p.245 (Quoted from Joan Robinson and John Eatwell, *Ibid.*).

ment, while the latter to pecuniary capital.[26]

It should be noteworthy for us here to examine the concept of ***natural rate of interest*** presented by Knut Wicksell. His concept of natural rate of interest is, in its real meaning, not a rate of interest, but a rate of profit. Wicksell distinguished the natural rate of interest from the money rate of interest, and argued the interrelationship between them in connection with trade cycle.[27] But the real meaning of the natural rate of interest was very similar to the rate of profit.

Having examined various concepts of costs, profits and interests, we can now readily see that the concepts of neo-classical writers on costs, profits and interests are so much confused with each other that a fundamental rearrangement is necessary. This evaluation seems to be also valid about the theories of the so-called neo-neo-classical writers. They resumed the old tradition by confusing the rate of profits with the rate of interests, and proclaimed the misleading argument again that the marginal productivity of capital in terms of social viewpoint could be measurable by the rate of return to the capital.[28] The Euler's theorem shows this very explicitly.

6. Ricardian Concepts on Costs and Profits and Neo-classical Concepts —Their Similarities—

The Ricardian model on capitalist society was based on the so-called system of ***tripartite division*** of agricultural interests, under which the net products of soil were distributed among three major classes in a capitalist society, land-owner, capitalist farmer and agricultural labourers, as rents, profits and wages.

Ricardian model as such corresponded to the situation in English agriculture in his day. In eighteenth century England, the enclosure movement had dispossessed the peasants; land-owners farmed out their land; the farmer contracted to pay rent and employed labour at wages. The excess of net output over the wage bill covered the rent and some profit for the capitalist farmers.

In the first and simplest version of his analysis, Ricardo depicted the agricultural sector producing single output…… corn…… requiring a years work

26) John M. Keynes, *The General Theory of Employment, Interest and Money*, Macmillan, London, 1936, p. 68.

27) Knut Wicksell, *Value, Capital and Rent*, (English), Transl, London, 1954, (*Über Wert, Kapital und Rent*, 1893).

28) R.M. Solow, *Capital Theory and the Rate of Return*, North Holland, Amsterdam, 1963: C.E. Ferguson, *The Neo-Classical Theory of Production and Distribution*, Cambridge University Press, London and New York, 1969, p.215.

from harvest to harvest. This sector required only a single input, also corn, produced within the sector itself, to be invested in the form of seed and to pay the worker's wages.

Ricardo's model exhibits the determination of the rate of profit on capital. Profit per man year is a quantity of corn, and the investment necessary to employ a man is a quantity of corn. The ratio of corn profit to the stock of corn is the rate of profit on the capital invested in producing corn.

Adapting Marxian notion, v is the wage bill in corn for a year for a particular amount of employment, c is the seed for the year's production and s is profit··· the excess of output over rent minus the cost of production $c+v$, all as quantities of corn. The capital invested is equal to $c+v$. The rate of profit on capital is $\frac{s}{c+v}$.

Prices of the various commodities that the capitalists produce must be such as to earn the same rate of profit as that received by the capitalist farmers in agriculture. If they earned a higher rate of profit, some farmers would withdraw their capital in order to invest in manufacturing industries. If a lower rate, some manufacturers would become farmers. Thus, the rate of profit will be equalizing throughout the whole economy, and the level of prices of the commodities will be finally regulated by the so-called *prices of production* which consists of $c+v$ plus *equalizing profit*, as far as there exists full competition in the economy; the daily market price will move over or below the level of the *prices of production* in accordance with the supply and demand schedules prevailing there. Thus the level of the prices of production will become the *natural price* or the *central price* that regulates the daily market price, as Adam Smith mentioned in his *Wealth of Nations*.[29]

In Ricardo's system, there is a certain amount of ambiguity regarding interest on money lended. Ricardo dipicted *interest* as a certain deducted amount of corn out of profit which was to be paid to money lenders, but he did not elaborate it any further. His analysis, however, refers to the natural equilibrium that will come to appear when the economy as a whole is functioning in *laissez-faire* conditions, although his analysis mainly dealt with economic development under capitalistic class structure. Under such a natural equilibrium, a certain amount of shares is to be distributed out of the total output to those who contributed factors to production; wages for labourers, interests for money-lenders, profits for entrepreneurs, and rents for land-owners. Among the factor costs, wages and rents can be illustrated explicitly, while profits

29) Joan Robinson and John Eatwell, *op. cit.*, pp. 18-9.

and interests are to be explained more elaborately.

In this connection, if the natural equilibrium is to appear at the same level as that of the natural price (that is equal to the so-called prices of production), the neo-classical concepts on *opportunity costs* and *normal profits* may be analogous to Recardo's concepts on profits and interests; i.e., the *equalizing profits* should consist of the interests to the capital as opportunity costs and the normal profit as a reward to the entrepreneur's risk-taking and some other relevant elements.

If the above interpretation were valid, it would be said that the Ricardian or Marxian system would closely parallel with the neoclassical system, as far as the natural price (or prices of production) in the labour theory of value and the equilibrium price in the neoclassical doctrines, both in full competition, are concerned.[30]

7. Differences between Ricardians and Neo-classicals

What, then, would be the differences between these two different theoretical systems? The following may be stressed in this context.

Although the concepts of each doctrine are, as illustrated above, very similar, the theoretical natures of each doctrine is very much different from the rest in viewpoints as well as in reasoning. The neo-classical doctrine put the subjective and psychological effects of the entrepreneur in the center of the system, while the labour theory of value put a crucial value on interpreting the relationship between various social classes. In other words, the foremr has no class analysis in relevance to the theory of prices, costs and profits, while the latter holds it as essential foundation of the theory.

As a matter of fact, if we examine the neo-classical theories regarding equilibrium price, it is found that the nature of the theory is very much functional and phenomenal. None of the writers belonging to the neo-classical school asks what the essential structure or the fundamental origin of the price is, as the classical writers did in the past. Earlier writers of neo-classical school, such as Leon Walras and Carl Menger, tried to find out the essential foundations that regulate the value in exchange, based on the concept of marginal utility(i.e., the marginal increment of subjective satisfaction of human beings). This concept of marginal utility, however, was not based on any historical meaning, but on a static relationship between consumer's subjective

30) William J. Baumol, "TheTransformation of Values: What Marx 'Really' Meant (An Interpretation)". *The Journal of Economic Literature*, March, 1974, p. 55.

appraisal on the goods and the goods themselves.

On the contrary, the labour theory of value, such as Ricardo's system, were based on analysis of relationship between social classes in production, which should be different as historical settings differ from each other. It could, therefore, be said that the labour theory of value put a crucial value on historically different forms of production, in systemizing its economic doctrines. The labour theory of value, however, has been sticking so much to the analysis of essential economic structure that they have been negligent to the functional analysis on the movement of market prices in the real world, which fluctuate around the level of the *prices of production* (equil-brium price). That is why it has been criticized as being too much metaphysical instead of scientific.

8. A Conclusion…A Possible Way to Unify the Two Competing Theories

Impartially speaking, however, the above two competing theories, i.e., the theory of neo-classical school and the labour theory of value would not be able to evade an criticism that both are bound with too much partisan and narrow-minded theoretical settings. On the one hand, the neo-classical doctrines should be criticized as subjective ones, for they pay little attention to the essential qualities regulating the phenomena. On the other hand, the labour theory of value should be criticized as an imperfect ones, in so far as they put so much stress on the essential production relationships that they come to be almost negligible to the functional relationships and to the subjective and psychological changes of people's mind, through which the essential relationships come to appear. It is indeed our daily experience, however, that the economic phenomena are being influenced and regulated day by day no less by the subjective and psychological changes on the part of people's mind, than by a certain socio-economic relations with which people are engaged in production.

If these too competing partisans in economics can be unified by taking what is essentially good out each of them, this will contribute much to the progress of our scientific knowledge of economic affairs.

In my opinion, the way to unify the two competing economic doctrines into an integrated system may be found in the analysis of the neoclassical *equilibrium price* and the Ricardian *natural price* or the Marxian *prices of production,* since these concepts are almost similar in their actual meaning. In other words, in the theoretical field of analyzing quantified functional and equational relationships between economic phenomena, the neo-clas-sical tools may be more conveniently utilized, while in the field of analysis on the essential qualities of the economic affairs underlying the current economic structure, the Ricardian or Marxian tools may be more reasonably mobilized: and the linkage that enables to combine them into an integrated and consistent system of price theory seems to lie in the concepts of neo-classical *equilibrium price*, the Ricardian *natural price* and the Marxian *prices of production*. An analogy of this relationship may be made to a case, where the former is the *surface* of a certain thing, while the latter is the *essential qualities* of the thing that is concealed under the surface of the thing.

I am afraid that this kind of theoretical settings may be considered as if it were merely an eclecticism, in a sense that both of the two competing doctrines are equally admitted without any reasonable logical basis. My standpoint, however, has nothing to do with such an eclecticism. It is my view that a new system of economic doctrines with more advanced systematic elements may be established through taking up positive factors out of the neo-classical doctrines as well as the Ricardian or Marxian doctrines to unify them into a more enhanced doctrine applicable to the real prevailing economic conditions.

For instance, in analyzing the laws of price formation of rice in Korea, we cannot contend ourselves to the phenomenal and psychological analysis of superficial supply and demand schedules, but we should extend our analytical boundary to the structure of production, since the laws regulating the price fluctuations are quite different between those under the capitalist farmers' system and those under the subsistence farmers' system.[31]

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31) For detail, see Chong Hwan Chu, "Ilchaehaui Nongsanmul Kagyokhyongsong Wolriye Kwanhan Kochal(A Study on the Law of Price Formation of Agricultural Products in Korea under the Japanese Imperialistic Regime)" in Korean, Korean Agricultural Economics Association, *Korean Journal of Agricultural Economics*, No. 17, 1975, pp.27-37: Ditto, *Kyeongjaehak-Gaeron* (*An Introduction to Economics*), *op. cit.*, pp. 200-204, pp. 282-86.

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