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PROFITS AND PRICES

By TOSHIYA HANAWA*

I. Market System Approach versus Entrepreneurship Approach

A general price-level means the price-level of a fixed composite commodity, and is in contraposition with individual price. The reason that an importance is attached to the general price-level in economics is because it considers that the reciprocal number of the general price-level expresses the value of money. And for grasping this general price-level, a market system approach and an entrepreneurship approach are considered.

The market system approach is the method which grasps the goods or services traded according to market economy on the transaction basis or on output basis, and it is considered that an importance is put on the contraposition of quantity of money versus goods and services.

Needless to say, several classified price-level can be considered in-between the individual price and the general price-level. For instance, the price-level of capital goods and the price-level of consumption goods are the price-levels considered from the viewpoint of classifying the commodities into capital goods and consumption goods by their character. Therefore, if the classified price-levels such as the capital goods price-level and the consumption goods price-level are existent, then the general price-level is considered as a weighted average of the capital goods price-level and the consumption goods price-level.

Thus, the concept of the value of money by market system approach is considered as cash-transaction-standard or cash-balance-standard, and in this approach, although the role of money in maintaining market economy is recognized, yet economic welfare viewpoint is neglected. That is, the general price-level in this case is composed of the transaction-weight in market economy, and this is considered that an importance is attached to the form of commodities while the relationship with economic subject is weakened. In other words, when considering the value of money, it is the value of money which economic subjects such as consumers, investors and asset-holders value for is important, and not the value of money determined by the relations with the value of commodities transacted in market economy, of which it is considered as a very unsatisfactory one viewed from the point of economic welfare.

Now, let \( M \) be the quantity of money; \( V_t \) be the velocity of circulation of money used

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1 By the same author, “A Study on the Value of Money” Hitotsubashi Journal of Commerce and Management, October 1971. In former article, as an importance was put on the behavior of consumers and investors, it was called the expenditure approach. But in this article, as the behavior of asset-holders is considered too, it will be called the entrepreneurship approach.
in trade; $P_1$ be the price-level of consumption-goods; $P_2$ be the price-level of capital goods; $T_1$ be the traded volume of consumption-goods; $T_2$ be the traded volume of capital goods; $P$ be the general price-level, and $T$ be the whole volume of commodities traded.

Then,
$$MV_t = P_1T_1 + P_2T_2 = PT$$
$$\therefore P = \frac{MV_t}{T}$$

Or, let $O$ be the total output instead of the volume traded; $O_1$ be the output of consumption-goods; $O_2$ be the output of capital-goods, $V_y$ be the velocity of money income.

Then,
$$MV_y = P_1O_1 + P_2O_2 = PO$$
$$\therefore P = \frac{MV_y}{O}$$

As the velocity of money income $V_y$ is the reciprocal of Marshallian $k$,——the proportion of the real income that people choose to keep in the form of money, therefore the equation can be re-written as: $P = \frac{M}{kO}$. Anyway, the general price-level is grasped explicitly by its relationship with the quantity of money.

In contrast with this, the entrepreneurship approach is considered as to supplement the defects of the market system approach. This approach can be stated as based on the standpoint of considering the price-level in connection with the behavior of each economic subject, such as consumption-subject which conducts consumption expenditure; investment-subject which conducts investment expenditure and assets-holding-subject which makes portfolio-selection. And the price-level in this case is considered to be expressed by the weighted average of consumer's price-level and investor's price-level.

Now, let $P_C$ be the price-level of consumer's goods; $P_I$ be the price-level of investor's goods; $P$ be the general price-level, $O_C$ be the output of consumption-goods; $O_I$ be the output of investment-goods; $O$ be the whole output, then, as it is considered that the consumption expenditure ($C$) will correspond with the value of consumption-goods $P_CO_C$, and the investment expenditure ($I$) will correspond with the value of the investment-goods $P_IO_I$, hence $C = P_CO_C$, $I = P_IO_I$, and $P_C = C/O_C$, $P_I = I/O_I$. Again, since the total expenditure ($D$) will correspond with the value of whole output $PO$, hence, $D = PO$, and $P = D/O$. Thus, as can be observed, there is no direct relations between the general price-level and the quantity of money. Judging from this point, although it is the same general price-level, but it seems that its content is quite different from that of the price-level approached from the market system. That is, in the entrepreneurship approach, it is the purchasing power of money being spent in the expenditure activities by each economic subject which is the issue, and not the value of money determined by the exchange of money and commodities in the market economy.

The difference between market system approach and entrepreneurship approach is not in the determination of the price-level only, it also gives an important difference in monetary theory. That is, the former asserts that the factors for the determination of income are the quantity of money and its velocity while the latter asserts that the determination for expenditure——not only investment expenditure but also consumption expenditure and government expenditure——is the factor to determine the quantity of money and its velocity. Before, an importance was rather attached to the difference between the monetary-theory-sense of both approaches, and the market system approach was called the Quantity
Theory of Money and the entrepreneurship approach was called the Theory of Income. This difference seems to continue to exist even if the Quantity Theory of money is replaced by the Neo-Quantity Theory of Money advocated by Friedman and others. The Quantity Theory of Money was once characterized by the assumption of the full employment output level and the fixed velocity of circulation of money, but the Neo-Quantity Theory of Money has overcome this criticism, and admitted the under-employment output level, and also admitted the change in velocity of circulation of money, in order to modernize the Quantity Theory of Money into the one with the stability of the function of circulation-velocity. While on Keynes' price theory, with the gap between "Treatise on Money" and "The General Theory" remaining, the rate of interest is rather drawing attention when money is related.

The aim of this article is to analyze positively the general-price-level obtained by this entrepreneurship approach, in order to reassess the Keynes' price theory.

Well, as to the correlation between the market system approach and the entrepreneurship approach, a part of its cause seems to stem from the difference of their respective capitalistic views of economy. That is, the former pursues the substance of capitalistic economy in market economy, and for this reason, put importance on the price mechanism which is the pivot of market economy. And it is considered that to make the most of the respective price mechanism in the market of products, the market of the factors of production and the market of capital will have a beneficial effect on the efficient distribution of the resources for production. And in this occasion, each economic subject will act according to this price mechanism, and is grasped as one of the homogeneous economic subjects to bolster this price mechanism; or being considered as should be one of the homogeneous economic subjects. As monopoly and oligopoly are exceptional ones, and are considered as to mar the price mechanism, therefore they should be excluded.

Contrary to this, the entrepreneurship approach finds the substance of capitalistic economy in entrepreneurship, and pays attention to the economic subject as the one which embodies entrepreneurship. Needless to say, it is not impossible to introduce entrepreneurship in the market system approach. This is just what Schumpeter has dealt with. But it seems to be a very difficult task to introduce the independent behavior of economic subject having entrepreneurship into the market system approach. It seems that even Schumpeter had to deal with the issue with dualistic grasps of static and dynamic ones.

Now, consider the consumers who take charge of consumption expenditure; the investors who take charge of investment and the asset-holders who take charge of portfolio-selection as the typical economic subjects. Among them, the investors, who, as economic subjects, make innovation investment, are called the entrepreneurs in order to express directly their entrepreneurship. But the economic subjects who embody entrepreneurship are not limited to the investors only. Even the asset-holders and the consumers can be classified into those who embody entrepreneurship and those who do not.

As to the asset-holders, it can be said that the analyses were already made in "Treatise on Money" and "The General Theory" as the monetary authorities and bullish, bearish conditions. But as to consumer's behavior, the analysis seems to fall far behind. But

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2 A. H. Hansen, Monetary Theory and Fiscal Policy, 1949, chap. 3-6
3 J. Schumpeter, Theorie der Wirtschaftlichen Entwicklung, 2, Aufl., 1927.
recently, it seems that to recognize entrepreneurship is becoming important even on the analysis of consumer's behavior.

The pollution of environment, the shortage of social capital stocks, the problem of education are all indicating the importance of the entrepreneurship on consumer's behavior. Thus, although the importance of entrepreneurship on asset-holders and consumers draws more and more attention, but it cannot be said conversely that all the subjects dealing investment necessarily have entrepreneurship. The case of mere producer also exists. Therefore, in this case, economic subjects should be grasped as heterogeneous and not as homogeneous. Here lies the very significance of putting importance on economic subject firstly instead of on price mechanism. The economic subject with entrepreneurship can make the investment-decision, consumption-decision and asset-holding decision, different from those made by general economic subjects.4

Now, it is said that the contemporary capitalistic economy is the mixed economy. The mixed economy is usually thought as a controlled economy where the government and the profit-seeking private enterprise cooperate in economic control. Certainly this is an extreme case, but if the definition would stick to the activities of the government, it might be misunderstood. That is, the public enterprise, with broader sense than the government, should be considered as the one which is combined with the profit-seeking private enterprise. It is expected that many big enterprise, not to mention central bank, railways corporation, power corporation, becoming conscious of their public nature, will be active as the public enterprises. Reversely speaking, those big enterprises which cannot be active as the public enterprises will be difficult to survive. Thus, it is considered that "The semi-autonomous corporation 5 rather than the office of the central government where the minister of state assumes the direct responsibility" will be one of the parties supporting the mixed economy. Thus, it is the mixed system consisting of private enterprise and public enterprise, rather than the mixed system consisting of private enterprise and government, which would lead to broad understanding of the mixed economy. And it is thought that this is the direction desirable for the development of the capitalistic economy. To make the public enterprise into the subject displaying actively the entrepreneurship will be especially important in Japan.

In the following part, having the economic point of view of capitalism into consideration, the study will centered in the re-valuation of Keynes' price theory. On the other words, although the policy problem will not be referred to so much, but it is claimed that the outcome of the study will be a frame-work where policy can be adopted at any time.

II. The Fundamental Equations for Prices

4 It seems incomplete in the usual "micro theory" versus "macro theory" since no attention is paid to the behavior of such heterogeneous economic subject. And it is thought that the colligation of Neo-Classical School proposed by P. A. Samuelson also criticized the same point.

5 Although it is desirable that the big enterprise, being aware of its public nature, would behave itself as the public enterprise. But this does not necessarily being actualized. Even the state or the government could stand on the side of the profit-seeking private enterprise. J. K. Galbraith, maintained in his The New Industrial State, 1967, that as it is possible for the state authority to be incorporated into the big business system, it is important for scientists, educators to criticize this fact from the standpoint of aestheticism. This is the opinion worthy listening.
It is thought that the first one to apply the expenditure approach to the determination of general price level was in Keynes' "A Treatise on Money". But, since "the General Theory" was published, it has been considered that "the Treatise", as the full employment economics, is absorbed by "the General Theory"—the under-employment economics—and the price theory seems to fall back. Therefore, in order to comprehend consistently the Keynes' price theory as an entrepreneurship approach, it seems necessary to grasp "the Treatise" and "the General Theory" with consistent method.

In "the Treatise" the windfalls (or losses) especially plays an important role. This is considered as the profits gained from the fluctuations of price during the production period. Naturally, this windfalls should be contrasted to the normal profits, and in "the General Theory", the object for examination is rather shifted from windfalls to normal profits, and the normal profits is thought as "the remuneration of entrepreneurs at any time as that rate of remuneration which, if they were open to make new bargains with all the factors of production at the currently prevailing rates of earnings, would leave them under no motive either to increase or to decrease their scale of operations." The definition here is considered very positively, yet, it can be said that this definition, in it's back, reflects the profits results from Schumpeter's Innovation—they are: the creation of new commodities; the introduction of new production methods; the exploitation of new markets; the development of new resources and the formation of new organization—and the profits results from the surplus in imperfect competition. The sum of windfalls and normal profits is the realized profits, and is contrasted with the income, as the contracted income, of the factors of production. (represented by wage income)

According to the entrepreneurship approach, the consumption expenditure, \( C \), is used for purchasing consumption goods \( P_C O_C \). \( P_C \) is the consumer's price level, and \( O_C \) is the value of consumption goods. And investment expenditure, \( I \), is used for purchasing investment goods \( P_I O_I \). \( P_I \) is the investor's price level, and \( O_I \) is the value of investment goods. And the total expenditure \( C+I \) is used for purchasing the total output \( P O \). \( P \) is the general price level, and \( O \) is the value of output. As the price levels are the current levels respectively, the windfalls or losses \( Q \) will result form the difference between these current price levels and the value of output calculated by equilibrium prices. Let \( Q_C \) be the windfalls in consumption goods sector: \( Q_I \) be the windfalls in investment goods sector, then the windfalls for whole sector will be the sum of \( Q_C \) and \( Q_I \). Again, let \( Q_n \) be the normal profits, then the realized profits \( R \) will be the sum of the windfalls \( Q \) and the normal profits \( Q_n \). Let \( c_w \) be the propensity to consume from wage income \( W \), \( c_Q \) be the propensity to consume from profit income \( R \), then consumption expenditure \( C \) will be the sum of the consumption expenditure from wage income \( c_w W \) and the consumption expenditure from profit income \( c_Q R \); and the investment expenditure \( I \) will be equal to saving \( S \), and this will be the sum of saving from the wage income \( (1-c_w)W \) and saving from the profit income \( (1-c_Q)R \). Hence the following equations.

---


Consumption goods sector: \[ C = P_c O_c + O_c + Q_c = c_w W + c_Q R \]
Investment goods sector: \[ I = P_I O_I = O_I + Q_I = S \]
\[ = (1 - c_w) W + (1 - c_Q) R \]
\[ \therefore P = \frac{P_c O_c + P_I O_I}{O_c + O_I} = \frac{C + I}{O} = \frac{Y - S + I}{O} = \frac{Y}{O} + \frac{I - S}{O} \]

And, as the equilibrium national income \( Y \) is the sum of the wage income \( W \), and the normal profits \( Q_n \), the price equations will be as follows:

\[ P = \frac{W + Q_n + I - S}{O} \]
\[ = \frac{W}{O} + \frac{Q_n}{O} + \frac{I - S}{O} \]
\[ = \frac{W}{O} + \frac{Q_n}{O} + \frac{I - S}{O} \]

Here, \( w \) is the wage-rate, \( N \) the quantity of employment, therefore \( \frac{O}{N} \) indicates the productivity of labor and \( \frac{W}{O} \) the rate of efficiency-earnings. In this way, it is clear that the general price-level is explained by the change of three factors, namely: (1) windfall profits or losses, (2) normal profits, (3) the rate of efficiency-earnings. These three stages are relevant to what Marshall called the three temporal equilibria. Namely, the first is instantaneous equilibrium; the second short term equilibrium; and the third long term equilibrium.

In the instantaneous equilibrium, the entrepreneur has no time to change his output, and the excess demand or excess supply is adjusted by the change of price only. The equilibrium output \( Y \) is thought to be constant during this period. It is unnecessary that the equilibrium output should be the full employment output \( Y_F \). In the analysis of "the Treatise", it is mainly the price problem in instantaneous equilibrium which is examined. Next, in the short term equilibrium, the excess demand or excess supply is adjusted rather by the change in output than by the change in price. However, the labor productivity \( \frac{O}{N} \) is considered as constant during this period. And, the wage-rate is constant, too, as long as unemployment exists. And once the full employment is reached, after this point, it is thought that the wage-rate will naturally advances. Lastly, in the long term equilibrium, the equilibrium in the process wherein the advancement of labor productivity will occur, should be considered.

These three stages correspond to J. Hicks’ partitioning of three stages. They are, according to Hicks, “In Stage One there is a rise in flexible prices (of capital goods or of consumer goods) without any change in output or in employment. In Stage Two comes the change in real activity (employment and output.) In Stage Three comes the rise in rigid prices (wages and so on). Of course, it is not maintained that every particular expansion will last long enough to work through to Stage Three; it may peter out before it gets there.8

As shown above, in Stage Three of Hicks’ Three Stages partitioning, the standard is set on the basis of rigid price; but in the partitioning in this article, the standard is on labor productivity. In other words, because it is thought that although the advancement of the general price-level is explained by the change of three factors, namely: (1) windfall profits or losses, (2) normal profits, (3) the rate of efficiency-earnings. These three stages are relevant to what Marshall called the three temporal equilibria. Namely, the first is instantaneous equilibrium; the second short term equilibrium; and the third long term equilibrium.

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wages—the rigid price—may occur, this advancement can also happen in the Stage Two. In the following paragraph, the price problem in these three stages will be examined in more details.

III. Profits and Prices

In this paragraph, having relevance to profit, the examination will be on the issue in Stage One and Stage Two. Windfall profits \( Q \) results from the gap between investment \( I \) and saving \( S \). That is: \( Q = I - S \). From real side, \( I - S \) gap will mean the inflation or deflation caused by a temporary disequilibrium adjustment; but from financial side, it is thought to indicate a financial gap. Regard a national economy as being consist of business sector and household sector, then investment will be consist of business investment \( (I_b) \) and household investment \( (I_h) \); and saving consisted of business saving \( (S_b) \) and household saving \( (S_h) \). That is: \( Q = (I_b + I_h) - (S_b + S_h) \). Therefore, \( Q = (I_b - S_b) - (S_h - I_h) \), and this exactly indicates the gap between sectors.

As it is thought that the capitalistic economy is a system where the operation of economy is left to the profit-maximization-orientated-enterprise, it is necessary to grasp the character of profit, but, contrary to expectation, it seems that there are not many literatures which have analyzed this issue directly. The examination on "widow's cruse which remains undepleted" and "Danaid Jar" in "the Treatise" is the pioneering study on this issue.\(^9\) According to this, however how much of entreperneurs' profits they spend on consumption, the profits, as a whole, belonging to that society will remain the same as before. This is because that the consumption from the profits will bring profits to the entrepreneurs who produce and sell these goods, and the profits will flow to the entrepreneurs. And the profits will be inexhaustible as the widow's cruse in the Old Testament. Needless to say, this will not prevent any change of profits from occurring among respective entrepreneurs.

On the contrary, if an entrepreneur attempts to recoup his losses by curtailing his consumption out of his profits, then he may succeed in securing his own profits, but it will reduce the profits of other entrepreneurs, and the diminution of the profits as a whole community's would never been ceased. It is like Danaid jar in Greek mythology, the jar with a hole will never be filled up with water. The following equations demonstrate these characteristics of profits clearly.

\[
I = S = (1-c_p)W + (1-c_Q)R
\]

\[
R = \frac{1-(1-c_p)W}{1-c_Q} = \frac{1-S_h}{1-c_Q}
\]

Hicks formulates this relation of profits, but restricts in windfall profits \( Q \).\(^9\) That is,

\[
Q = \frac{1-S^*}{s_2}
\]

\( s_2 \): here is the propensity to save out of windfall profits, and \( S^* \) is the saving out of the income excluding windfall profits. That is, the saving from the sum of wage income

\(^{10}\) J. Hicks, *Critical Essay in Monetary Theory*, 1967, p. 197.
and normal profits. Certainly, Hick's interpretation is adequate as long as it is the interpretation of "the Treatise", but in case of examining the nature of profits in dynamic process, not only the windfall profits but normal profits, too, should be included for comprehension. Thus, needless to say, the saving $S_h$ out of income—here, represented by wage income $W$—clearly distinguished from profits, is important.

Now, the fact that the profits as a whole community's is constant, even if the individual profits of entrepreneur may increase or decrease, can only be stated in nominal value, therefore, in case of expressing this in real value, the attention should be paid to the index numbers of price-level. That is, when the general price-level $P$ is used to deflate, as the following equation clearly indicates, the case where there is the consumption out of profits will be higher than the case where there is no consumption. Therefore, the change of real value will depend upon what the propensity to consume from the profits will be.

$$P = \frac{wN}{O} + \frac{R}{O} = \frac{wN}{O} + \frac{I-S_h}{(1-c_q)O}$$

But as $P_I = \frac{I}{O_I}$, $P_I$ will be determined without regarding to the propensity to consume from the profits $C_q$. Therefore, if the profits as a whole community's should be constant either expressed in nominal value or in real value, then deflator should be $P_I$. If deflated by $P_c$, then, it can be said that the influence exerted by the consumption out of profits will be more remarkable. That is, $P_c = \frac{c_wW}{O_c} + \frac{c_qR}{O_c}$ demonstrates it clearly.

Now, it seems that Hicks is not unaware of the importance of sectoral price-levels, but he seems not to appreciate its significance so much. That is, when he refers to Chapters four and eight of "the Treatise", he maintained that "Their chief purpose is to emphasize the importance of sectional price-levels, as against the 'general price-level, with which monetary theory had formerly been mainly concerned. This is a lesson which has now so thoroughly sunk in as to be a bit boring. All that requires to be noticed, for the purposes of later chapters, is the rather tiresome trick of vocabulary that is carried over from these discussions: the habit of referring to these sectoral price-levels as 'standards'—Consumption Standard, Labor Standard, and so on."

But, the sectoral price-levels are significant when viewed from expenditure approach. One typical case which demonstrates this point clearly is the case of simple reproduction. In this case, there is no investment goods sector, and no investor's price-level emerges. Therefore, the consumer's price-level will be the basic price-level for national economy. The investment goods sector and investor's price-level emerge when they are connected with the growth of economy and business cycle. Let's first examine the profits in short-term equilibrium related with business cycle.

The normal profits $Q_n$ is the profits which would leave entrepreneurs under no motive either to increase or to decrease their scale of operations. In other words, it is the profits which makes entrepreneurs satisfied in maintaining his scale of operations. Needless to say, this scale of production is not necessary to correspond to full employment level. Now, consider $\frac{Q_n}{O}$. As the outputs under the full employment level will have their respective $Q_n$

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corresponding to the respective outputs, it can be said that \( \frac{Q_n}{O} \) remains constant. As the full employment output \( O_F \) is the maximized output, it is thought that \( \frac{Q_n}{O} \) increases only when the output exceeds full employment level. This should be the reason why the analysis of price-level is treated lightly in "the Treatise" which mainly examines the under full employment states. If a rise in price occurs because of profits, then since profits is flexible, the price can be kept stable by controlling the effective demand. But, after the full employment level, not only \( \frac{Q_n}{O} \) but wage-rate \((w)\) also will advance, and as the wage-rate, being different from profits, is thought as rigid downwards, it is impossible to lower the once advanced wages even by the control of excess demand. And wage inflation will never be controlled in short term equilibrium where labor productivity is constant. Besides, even if output level is lowered under full employment level by the control of effective demand, but as \( \frac{Q_n}{O} \) will not fall under full employment level, it is very possible that inflation will not be controlled and, instead, the reduction of output and the increase of unemployment are brought about. This is the phenomenon which is called stagflation recently. Therefore, the mean of settling stagflation can only be found in long term equilibrium.

Lastly, it is necessary to refer to the conceptions of profit inflation and income inflation in "the Treatise". Keynes calls the price fluctuation due to the windfall profits profit inflation" (and profit deflation); and the price fluctuation due to the income exclusive of windfall profits "income inflation" (and income deflation). But, the price fluctuation due to the windfall profits is originally the movement towards the equilibrium price structure and is the desirable adjustment activity for national economy. Therefore, it seems improper to call it by the term of inflation (and deflation). Therefore, in this article, the price fluctuation related to normal profits will be called profit inflation and the price fluctuation related to the contract-type-income represented by wages will be called wage inflation.

Profit inflation will eventually come to an end as long as it is not accompanied by wage inflation. On this occasion, as the fall of prices is the adjusting lowering of prices, it is not proper to call this deflation. True deflation means the collapse of the whole cost structure — fundamentally, the first term of "the Fundamental Equation", that is, the structure based on efficiency-wages—and it seems to bring about a very tragical outcome to national economy.

### IV. The Problems Left—— for the Development in Future

In this paragraph, the problems which are left for further study will be examined. First of all, let consider the basis for long term equilibrium as opposed to instantaneous equilibrium and short term equilibrium. The characteristic of long term equilibrium, different from Hicks' Stage Three which considers the change of rigid price, is that it takes the so far unchanged labor productivity into consideration. This point is also related to the

substance of Keynes' theory. That is, there is an assertion which attributes the realization of under full employment equilibrium in Keynes' economics to the hypothesis of the rigid wage. According to this, if the rigidity of wage is assumed, even in the system of Classical School, unemployment will occur if demand falls, but if wage is flexible, it asserts that there will be no chronic and enormous unemployment except the temporary unemployment as frictional unemployment. In this way, Keynes' economics is taken as the special theory of the Classical School economics. But, Keynes is not to assert the realization of unemployment by assuming the rigidity of wages. Rather, Keynes theoretically hypothesizes the flexibility of wages, although he thinks that wages is rigid in real world. He asserts that the wage-cut is the sword with two blades. Although it reduces costs in one hand, but in other hand, more than merely reducing the costs, it reduces income and expenditure of wage-earning class, therefore is no assurance that the full employment can be attained automatically. And it is this hypothesis that wages is flexible which makes the wage inflation in short term equilibrium controllable. If wages is rigid, the wage inflation can only be settled in the long term equilibrium.

In the price equation in long term equilibrium, too, three factors can be considered. The first term of price equation demonstrates the stability of efficiency-wages as the pivot of price-level. During the process of economic growth, the labor productivity will be improved. The efficiency-wages will have a tendency to rise, to remain stable, or to fall, depending respectively on whether money wage rate will increase more rapidly than, pari passu with, or less rapidly than the improvement of the labor productivity. In any case, it is thought that the same results will be obtained formally, but under the contemporary society's policy, the efficiency-wage with downward tendency will never be adopted. Moreover, as the rapid improvement of efficiency-wages will result in the unfairness of income and wealth, and increase the social uneasiness, the adequate stability of efficiency-wages will be the desirable target.

Next, as to the second term, it is necessary to re-grasp this dynamically. That is, to replace the latter half of the definition of the normal profits in "the Treatise", "the normal remuneration of entrepreneurs at any time as that rate of remuneration which, . . . would leave them under no motive either to increase or to decrease their scale of operations." with "would give them a motive to increase their scale of operations by on more nor less than their normal growth rate." Then, this is exactly to be considered as Harrod's warranted rate of growth \( G_w \). And this warranted rate of growth, let alone short run, probably can be considered to change in long run. And what influence will the change of the rate of advance of technique and the change of government activities exert on the second term should especially be examined.

Lastly, on the third term, it is important to have this considered in dynamic process. That is, \( \frac{I-S}{O} \) can be re-written as \( \left( \frac{I}{K} - \frac{S}{K} \right) \div \frac{O}{K} \).

Now, it is the neutral advance of technique of Harrod's type, then \( \frac{O}{K} \) is constant.\(^{14}\)


\(^{14}\) As to the neutral advance of technique, Harrod's type, Hicks' type and Solow's type can be conceived. But in this article, the Harrod's type is considered.

and I-S gap will be indicated by \( \frac{I}{K} - \frac{S}{K} \) gap. Well, when the third term is not zero, then it is indicating that there is a gap between the warranted rate of growth \((G_w)\) and the actual rate of growth \((G)\), and this gap is considered rather as the short run adjustment of economy.

As opposed to this, the long run adjustment of economy can be considered to come out in connection with the gap between the rate of natural advance \((G_n)\) and the warranted rate of growth \((G_w)\)=the actual rate of growth \((G)\). As the natural rate of growth is the sum of the rates of the increase of population and the increase of labor productivity, when \(G_n < G_w\), the efficiency-wages in the first term will have a tendency to rise; and when \(G_n > G_w\), the efficiency-wages will conversely have a tendency to fall. The golden age expressed by \(G_n = G_w = G\) demonstrates the stability of efficiency-wages as well. As to what tendency the movement of price-level in the process of growth will have, as I hope to leave this problem for further study in the future, this article will remain as a preparatory one for that purpose.

Well, the third problem left is financial problem. As the discussion of this article has centered in price-level, the economic subjects here are mainly represented by consumers and entrepreneurs, and the behavior of asset-holders has not come to the surface. But, investment-saving gap is financial gap as well. For the settlement of this gap, it is necessary to examine how financial institutions and asset-holders behave. And here is exactly the channel where the monetary policy will have its effect. To study critically this channel is important for the examination of the effectiveness of the monetary policy on price problem. Monetary policy is effective on profit inflation, but once the downward rigidity of wages is presupposed, the monetary policy will become ineffective on wage inflation. Income policy is its substitutive policy. Well, when regarding income policy, it is often apt to think it in a narrow sense as wage control, but it should be thought in a broad sense as the policy in general to control the first term of the price equation—especially the measure to improve labor productivity is thought to be important.

Now, let's examine the price policy. From the above-mentioned modified price equation, the price policy can be examined in two interpretations.

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P = \frac{wN}{O} + \frac{I - S_h}{(1-s_q)O} = \frac{w}{A} + \frac{I - S_h}{(1-c_q)O} = \frac{O}{N} = A
\]

As inflation is a dynamic phenomenon and not a static phenomenon, naturally a sharp line should also be drawn in the price theory for inflation between structural price flexibility and cyclical price flexibility. The former is related to the long term secular adjustment in the price structure, and is in connection with the first term of the above-mentioned equation. The latter is related to the sensitivity of prices to fluctuations of the business cycle, and is in connection with the second term of the above-mentioned equation.

Let's examine the latter first. In this case, an important phenomenon is the phenomenon of price dispersion in the process of business fluctuations. That is, as raw materials, etc., are thought to be more sensitive commodities to business fluctuation than finished manufactured products, the dispersion of price will result from the different degree of the

\[15\] A.H. Hansen, Fiscal Policy and Business Cycle, 1941, chap. 15.
rise in price caused by the increase or decrease of output. On this occasion, what should be made clear is that the dispersion of prices is the outcome and not the cause of the changes of output. In other words, "The dispersion of prices is a thermometer indicating fairly accurate the abnormality of economic temperature." Therefore, when the phenomenon of price dispersion takes place, it will be impossible to improve the movement of economic activities by correcting the dispersion itself. What is rather important is to maintain the adequate effective demand level which is the fundamental motive for price dispersion. Nevertheless, if the policy does not strive for maintaining the adequate effective demand level and only attempts to adjust prices all along, then the depression will result in more intensified depression, because the lowering of wages in order to lowering the costs to correspond the fall in commodity prices will result in the decrease of effective demand. Thus, it seems that the adjustment of prices in the period of depression would rather intensify depression than recover from depression. In the same way, as the adjustment of prices in prosperous days is likely to cause inflation, it is not always admissible to have the adjustment of prices. And to the enterprise concerned, the increase of productive capacity is preferable to the rise in prices. This becomes exactly the structural problem. Thus, it cannot be asserted that it is desirable to raise prices because of prosperous days. As a matter of fact, the situation is often adjusted by postponing the date for delivery.

As opposed to this, the structural price flexibility is considered as being related to the resource allocation in the process of economic growth. That is, in the process of economic growth, it is expected that the interrelation of individual costs will change continuously because of the changes in technology or in demand structure, and the changes in price system corresponded to these changes are thought to be the measure for promoting the effective allocation of productive resources and thus to warrant the economic growth.

If the structural price flexibility in this sense does not work, and derange remarkably the structural adjustment of prices, then it probably would exert the disturbing influence on consumption and investment, and at last might exert the influence on business cycle. But the maladjustment of structural prices like this is rather slowly accumulated, and is considered to exert almost no influence on business cycle, but instead, become solely the obstruction to economic growth. Hence, the structural price flexibility is the price condition for economic growth.

Now, the growth of economy should be realized as the raise in labor productivity. But for the improvement of labor productivity, an enormous plant and equipment investment is required. Therefore, for the entrepreneur to carry out the plant and equipment investment in order to strengthen productivity, the entrepreneur must have the firm confidence in the increase of demand for the commodities. If the fluctuations of business conditions are severe, the investment for strengthening the productivity will be retarded. Therefore, it seems that, without the stability of business conditions, it will be impossible to carry out the economic growth. Especially at the present time when the insufficiency of the productivity of the small and medium sized business is thought as the cause for inflation, the stability of business conditions seems very significant.