PRICE RISE BASED ON DYNAMIC PRODUCTIVITY DIFFERENTIALS[1]

By YOSHIHIRO TAKASUKA

Assistant, Institute of Economic Research

We shall try in this paper to analyse a characteristic type of price rise under monopoly capitalism from view point of Marxian law of value.[2] There are two important points for our analysis. First, this type of price rise is seen in the developed countries exclusively of service price, but in such a country as Japan where the structual differentiation both in productivity and its change rate exists between big business and small business, this type of price rise is seen in broader branches of the economy. For example, in post-war Japan after 1955, wholesale price keeps a constant level with fluctuations, while consumer's price is rising continuously. This sharp contrast movement of wholesale and consumer's price many factors will contributed to is very interesting to analysis, but we have no enough space to refer to all of them. We must satisfy here to point out that to the rise of consumer's price contribute greatly the price rise of small enterpreses in service, agriculture (except rice and wheat producer) manufacturing industry producing consumer's goods. And the mechanism of price rise in such branches, that is, in the bottoms of so called 'dual structure' of Japanese economy is, we think, same as that of rising service price. However, the mechanism of rising service price cannot apply directly to the price movement of Japanese consumer's goods which include not only service but also products of manufacturing industry. So it is necessary for us to reformulise the mechanism of rising service price in more general form and to make its role clearer in the whole reproduction structure of an economy. Second, when we try to analize price movement under monopoly capitalism from a view point of the law of value,[3] we need to re-appriciate the tendency for equivalent exchange in a new sense. For it is difficult for us to find the tendency for equivalent exchange in an individual exchange under monopoly capitalism. In stead, we must seek it in exchange relations of groups of commodities. In other words, how the tendency for equivalent exchange manifests itself in the change and recomposition of price system becomes crucially important. How appears the tendency for equivalent exchange in the price system? As we shall see later, price does not always change in coincidence with change of

---

[1] This was originally a paper prepared for the report at the 7th meeting of Association for Economic Theory in Japan in spring of 1962. I am very glad to say thanks for useful comments there.

[2] There are two articles on this subject from the same point of view: Mitsuharu Ito, Contemporary capitalism and the price rise (Japanese) *Keisai Hyoron* Dec. 1962 and Ichiro Kawai. The rising consumer's price and inflation (Japanese) *Keisaigaku Zattshi* no. 4, vol. 44.

[3] Discussions and interpretations on the law of value are so many and complicated that it is necessary to see where we think its essence consists in. According to my interpretation, it is composed of three elements: 1) the determination of value by socially embodied labor—the law itself, 2) the equivalent exchange—a tendency or regularity with which the law of value manifests itself through commodity exchanges, 3) the proportional distribution of social labor—a function that the law realizes in the long run. We can confirm the equivalent exchange and the proportional distribution of labor in spite of substantial modification of the determination of value by socially embodied labor under monopoly capitalism.

value, namely, socially embodied labour and conversly the deviation of price from value is enlarging more and more under monopoly capitalism. But the tendency for equivalent exchange may be seen if changes in relative price check or mitigate the expanding unequal exchange in value (labour) relations. Needless to say, the realising forms of such tendency are different on different stages of capitalism. What is the typical form under monopoly capitalism will be shown later.

MONOPOLISTIC EXTRA PROFIT

What is the characteristics of price movements under monopoly capitalism? And what is the difference between price movements under competitive capitalism and those under monopoly capitalism? In order to answer those questions, we must enquire what effects the emergence of monopoly gave to movility of capital and labour which were two crucial moments of price system under competitive capitalism, and how those effects reflect to the new price system under monopoly capitalism. The deformation of competition by emergence of monopoly is first to mention. After emergence of monopoly or olygopoly it is quite difficult for new capital to enter to the sphere of the established monopoly, though competition is not excluded. The mechanism to equalise rates of profit is principally damaged by this, and prices under the control of monopoly capitals has tendency to be fixed on a level by which they can prevent new entry from outside. So prices does not change in coincidence with changes of socially embodied labour.

However, there are phenomenon in price movements under monopoly capitalism which we can regarded as an accomplishment of equivalent exchanges. It is the main subject with which I will matter here. The price movement which accomplish this has its deepest root in the introduction of new method of production in an industry under control of monopoly capital. As you know, it corresponds to the price movement under competitive capitalism which contains all process from appearance to disappearance of extra profit.

Of cource, the same process from appearance to disappearance of extra profit does not remain under monopoly capitalism. In order to see how it has changed, it is useful to divide this process into two stages: a transition stage from introduction of new method of production to its privaling and a stage after its complete prevailing, to which correspond the two concepts of extra profit, that is, the simple extra profit gained by monopoly capital and the monopolistic extra profit.

simple extra profit gained by monopoly capital. While new method of production is introduced and does not privail to all capitals in an industry where few monopoly capitals predominate, it is same as under competitive capitalism that an enterprise which introduced it earlier than others can procure extra profit. So far there are no difference between them. However, it is of monopolistic character as far as the extra profit is not diminishing with falling price, which is done in proportion to privailing new technique under competitive capitalism. For competition from outside is excluded because of the existing entry barriers, the privaling new technique is confined to monopoly capitals of the same industry and competition among monopolies does not take the form of price competition. Though it is deformed by them, it is corresponding categorically to that of competitive capitalism and so we call it the simple extra profit gained by monopoly capitals.

monopolistic extra profit. The essential difference in this respects from competitive capitalism comes after privailing of new method of production or technique. After its privailing, monopoly capitals maintain their price rigidly, for they do not feel pressures to cut down their price because of difficulties for other capitals to enter to the sphere of the established monopoly capitals, that is, high entry barriers. Then all monopoly capitals can get the same amount of extra profit as that of the enterprise that introduced new technique at first. So the simple extra profit gained by monopoly capitals is fixed to the extra profit gained commonly by all monopoly capitals in that industry. We call this the fixation of extra profit and define this fixed extra profit the monopolistic extra profit.[4]

This as well as different scales of capital is one of the main causes to differentiate rates of profit by industry under monopoly capitals. For introduction of new method of production which is necessary for emergence of the monopolistic extra profit is different by industry.

What happens on value relations of commodities, if prices are maintained rigidly after prevailing of new method of production and therefore the monopolistic extra profit can be procured? The result is the expanding deviation of price from value at commodities and expanding non-equivalent exchange on value dimension between products by monopoly and non-monopoly capitals, nevertheless there would be no change in prices of them and therefore commodities would be exchanged with same prices as before. As far as we see only this phenomenon, we cannot find any tendency for equivalent exchange. But a price movement which checks expanding non-equivalent exchange indirectly comes from as a by-product of distribution of the monopolistic extra profit.

DISTRIBUTION OF THE MONOPOLISTIC EXTRA PROFIT

It is natural that emergence of much monopolistic extra profit should cause the labour to demand for higher wage. For its existence involves the expansion of "definite width to which revision of wage rate will be accepted by the result of struggles between capital and labour." (F. Engles)[5] On the other hand, there are some conditions for capital to compromise for labour's demand. The main of them are the following.

(1) There are enough room to gurantee considerably high profit after compromise with labor's demand because of a vast amount of monopolistic extra profit.

(2) It is provable that the damages which suffer from troubles with labor (strike, collective bargaining, etc.) which will happen when the labor's demand is rejected in spite of a vast amout of monopolistic extra profit, are greater than the losses when a compromise is made with labor. The higher the organic composition of capital, the greater losses are.

(3) High wage is agreeable for capital as far as it can secure necessary good laborer to the capital.

(4) Economic circumstances where "process of absorption of economic surplus"[6] is going,

---

[4] The same conception of our monopolistic extra profit is seen in R. Hilferding's '*Das Finanz Kapital*' (Kapital 12). He said followings on a page where he discussed cartel price; cartel price is usually settled at a level of price of production of the factory having the lowest productivity and therefore factories having higher productivity get extra profit, that is, a kind of differential rent. But monopoly capital finds it not profitable to continue production at the factory having the lowest productivity and introduce there new machinary of higher productivity. As cartel price would not change after that, there would remain only high cartel profit though the differential rent vanishes. The high cartel profit which remains after vanishment of extra profit as a kind of differential rent is equal to our monopolistic extra profit.

[5] K. Marx und F. Engels Über die Gewerkschaften, 1953, S. 214.

[6] P. Baran; Some consideration on underconsumption, in '*Has Capitalism Changed?*' ed. Pro. Shigeto Tsuru p. 157.

make it easier to compromise for higher wage.

Thus, we confirm a tendency to give back a part of the monopolistic extra profit to labor in the industry where established monopoly capitals raise their productivity. Wage rate will increase at first in this industry for the result of this distribution of monopolistic extra profit. This is the main factor which cause to differentiate wage rates by industries. For this type of wage increase presupposes the monopolistic extra profits which are combined results of different degrees of combination of monopoly capitals and different steps of introduction and prevailing of new technique. It is needless to say that only a part of this profit is given to labor and differentiated rates of profit is not evened up by it. If monopolistic extra profit does not extinguish by falling price and is distributed between monopoly capital and labor, it makes differentiated rate of profit and differentiated wage rate at the same time.

TENDENCY OF WAGE

We pointed out in the foregoing section that the emergence of monopolistic extra profit results in the differentials of both profit rate and wage rate. But there are some pressures to check this expansion, as far as there remains competition among capitals and among labors in any degree. While competition among capitals is divided into two parts; competition among monopoly and non-monopoly capitals, and it is not easy that those differentiated rates of profit are adjusted by capital movement between two parts. On contrary, competition among laborers is not seriously divided though it is not perfect because of wage differentials, different powers of labor union, etc. So let's investigate what influencing effects high wage in a part of economy gives to total wage level. It may well be said that there was a powerful mechanism on the stage of competitive capitalism to level each wage rates to the average, which was the result of competition among laborers. On contrary, there is a potential tendency under monopoly capitalism to catch up lower wage rate to higher as far as high wage industry (or enterprise) is established in the economy and there remains competition among laborers in any degree. We call it the tendency for higher wage rate. To compare it with mechanism of wage determination under competitive capitalism, the lowest wage rate is pulled up to the average by free removal of labor power as well as on competitive capitalism, while powers which pull the highest wage rate to the average are prevented by many factors and on contrary, the average try to catch up to higher wage rate. The form on which this tendency appears is different when strong labor union exist or not. It is natural that the highest wage rate in the economy imply an attainning goal for labor union that has a wide organization and strong power and try to catch up or level up to it. Needless to say, labor union by industry is more efficient than that by enterprise and the union which has a national organization is more efficient than that by industry on this case. An industry or enterprise having no union is usually one of the lowest part of the wage differentials and the tendency for higher wage rate is difficult to realize. But on that industry permanently exists *potential* relative labor shortage whenever *real* labor power is overflowed or not. The laborer of that industry wants to remove to higher wage industry at any time and so lower wage industry can secure necessary labor power only at the buyer's market of labor power and will be influenced severistly by or suffer from change of buyer's market into seller's market of labor power, that is, real labor shortage. And existence of overflowed labor power is a factor to check actualization of potential labor shortage, but it is unable to deny potential labor shortage itself. It is at an upswing phase of the industrial flunctuations that seller's market of labor power occurs and potential labor shortage which is vailed by overflowed unemployed is actualised by it. In such situation, the wage rate of lower wage industries will rise. The tendency for higher wage rate may be seen at such sphere if rising wage rate of lower wage industry maintains after disappearance of seller's market of labor power. And it is well known in the modern developed countries that downward rigidity is widely seen as to wage level. Therefore, wage rate of lower wage industry has a tendency to catch up to higher level in an economy where higher wage rate is established. It seems the characteristics movement of wage under monopoly capitalism, for monopolistic extra profit makes high wage industry and catching-up process of wage is caused by it. But adding some words not to misunderstand of it, it does not mean directly that there is a tendency to equalise the wage differentials or to raise up real wage under monopoly capitalism. The actual wage differentials are combined results of two tendencies, that is, an appearance of higher wage rate and catching-up to it. The former is a factor which expands differentials of wage rates and the latter is a factor which reduces it. And real wage is depend on the rising speed of wage rate and consumer's prices. What is said by existence of the tendency for higher wage rate in the lower wage industry is that money wage of this industry will rise and what is important for our discussion is that money wage can not help rising in a industry where productivity has not changed.

PRICE RISE IN A SPHERE OF LOWER PRODUCTIVITY

What influence the cost rise which is caused by rising wage rate in the sphere of lower productivity will give to its price movement? It is important to notice that rise of labor cost is common to each industry and so far it does not intensify competition in the industry like a price rise of row materials. So it may well said that common change in labor cost can easily transfer to price. But the success in transformation is depend on other factors. Under a situation where there exists provability to introduce new method of production on rising labor cost and falling profit rate, the rising labor cost enforces capitals its introduction and they try to cover it by raising productivity. In this case, competition among capitals is intensified and rising labor cost is not transfered to price even in an industry with lower productivity. On contrary, under same conditions individual capitals will success eventually in raising up their price in an industry where introduction of new technique is difficult and the differentials of productivity between progressive industry and this industry is expanded. It is usually said that difficulties of rising productivity are confined to such as service industry where its difficulty rests on technical speciality of this industry. But it is not confined to the industry. There are many enterprises in manufacturing industry which are difficult to raise up their productivity because of institutional or structual restrictions. Latter case is often seen in bottom parts of so called 'dual structure of Japanese economy'.

Though price rise will eventually occur on an industry having no change in productivity when it meet a rising labor cost, the ways or forms of price rise are not same at competitive industry as at monopolised or oligopolistic industry. On a monopolised or oligopolistic industry the rising labor cost leads to price rise automatically by an agreement on price rise or an administered pricing policy which follows the price rise of price leader that is determined by mark-up method or full-cost principle. It is very important that the rise of labor cost is common to all enterprise of the industry. If not so, it is difficult even for a price leader to raise price up, for other oligopolies do not necessarily follow it. P. M. Sweegy's kinked demand curve[7] accounts for it. Competitive industry has no power like monopolised industry to transfer rising labor cost to price and so profit rate falls naturally by it. Moreover, profit rate of competitive industry under monopoly capitalism is lowered to the minimum on which capitalistic enterprise can continue its production. So to the enterprise arises a crucial question whether it continues its production or not when the profit rate falls lower than the minimum level. On that point, if it is necessary for society to secure definite quantity of products of the industry, it is indispensable to maintain enough level of profit rate to continue production and to raise up price. Two courses of the price rise in the sphere of non-monopoly capitals are following: First. rising labor cost—falling profit rate—decreasing supply—rising price. When labor cost rises and profit rate falls on an industry where rise of productivity is difficult, there occurs bankruptcies of marginal enterprise or escapes of capital which happens to meet at period to replace its equipment by chance and so supply of this industry will decrease in spite of no change in demand. So price and profit rate will rise. If this causes inflow of capital, output will increase, but if this increase is as much as the losses of output by rising labor cost and meets demand of the society, price will be stable at a risen level and profit rate will return to former level before rising labor cost. Were it not so, same process would do over again and price would not be in stability. Second, rising labor cost—falling profit rate—increasing demand—rising price. For an industry which feels pressure to raise price up because of rising labor cost and can not find chance of its realization, any increase of demand will give the chance and however temporally it may be, price will keep equilibrium at a risen level, and therefore profit rate will be higher than before. And as far as new level of profit rate attained by price rise is equal to a level before rising labor cost, it does neither intensify inner competition of that industry nor facilitate inflow of capital (competition from outside.) The nearer profit rate is to the minimum on which a capitalistic enterprise continues its production, the offener this type of price rise occurs. It is, we think, a type of cost-pushed price rise which is realised on a demand-pulled situation of market. It is worth while saying that the deepest ground of this price rise is maintenance of necessary capital and labor in industries with minimum profit rate. This is nothing but one of ways to accomplish 'proportional distribution of social labor' (Marx), which is the function of the law of value.

PRICE RISE BASED ON DYNAMIC PRODUCTIVITY DIFFERENTIALS

Let's summerize foregoing analysis here. There were three major factors in it.

(1) The settlement of monopolistic pricing policy; monopolistic extra profit accues to a monopolized or oligopolistic enterprise where rise of productivity is seen. The existence of monopolistic extra profit is the deepest causing factor in this mechanism of price rise.

(2) The tendency to catch up to higher wage rate; wage rate in monopolised industry rises as the result of distribution of monopolistic extra profit. It is a factor making wage differentials in each industry on one hand and give rise to produce the tendency for higher wage rate in the lower wage industry on the other hand. And this brings about the rising labor cost in an industry having no change in productivity.

(3) The fixation of differential change rate of productivity; change rates in productivity are

[7] P. Sweegy; Demand under condition of oligopoly *Journal of Political Economy*, 1939.

varying from industry to industry and from time to time. But if price keeps stable in an industry where productivity has changed, the differentiation of change rate in physical productivity is fixed to be productivity differentials of added value. This is the basis on which our mechanism of price rise operates.

These three factors, of course, are interrelated. It is not to say that implications of the monopolistic pricing policy and tendency for higher wage rate are wider than those in our analysis. For example, the former includes ploblems of administered price, seller's inflation, etc. and the relation between wage and productivity is more generally studied as seen on a discussion on cost-inflation. What concerns with our analysis is only a part of them, speciality of which is determined by the above mentioned basis of the mechanism. Other two factors plays their roles in our mechanism of rising price as far as they are connected with this basis, that is, productivity differentials. In this sence, the basis is a keypoint of the mechanirm. As for the tendency to catch up to higher wage rate, it is an axis of the mechanism. If the tendency is checked to realise itself under conditions of existing monopolistic extra profit and productivity differentials, profit rates and wage rates are differentiated in proportion to the productivity differentials in stead of price rise. It means that price rise is absorbed by expansion of differentials of profit rate and wage rate.

Now, what happens in price system as the result of this price rise? Price is kept rigid in the industry under the control of monopoly capitals nevertheless reduction in value because of rising productivity, while price is rising in other industry without change in value. In this respect, deviation of price from value is only to expand at each commodities and it seems contradictory to the operation of the law of value. However, it is important to see changes in relative price between industry with higher productivity and that with lower one. And the change is advantageous for the latter. We must appriciate this rightly. This is a form under which the law of value is accomplished on the stage of monopoly capitalism. There would be no change in price system on a case of no changes in relative price, but under exchanges by this relative price would be performed an unequal transaction of values, that is, transaction between less value of the industry with higher productivity and more value of the industry with lower one. However, relative price has changed in our mechanism of price rise so as not to expand this unequal exchange. This is the realisation of equivalent exchange through recomposition of price system. It is noticeable that its realisation is performed by rising price in an industry having no change in value under monopoly capitalism, while it is performed by falling price in an industry having reduction in value. Thus the realising form of the tendency for equivalent exchange are different on the two stages of capitalistic development.

OUTFLOW AND MAINTENANCE OF THE MONOPOLISTIC EXTRA PROFIT

It is an interesting problem whether this mechanism of price rise will contribute outflow or maintenance of the monopolistic extra profit. Of course, there are not the same mechanism of its outflow under monopoly capitalism as that under competitive capitalism where whole extra profit disappears by the inflow of capitals and falling price. However it is not right to say that the monopolistic extra profit does not disappear at all under monopoly capitalism. It disappears through three ways; falling price, rising wage and changing relative price. Here we can distinguish direct outflow of monopolistic extra profit (falling price and rising wage) and its indirect or nominal outflow (changing relative price). Surely rising productivity will cause to fall even monopoly price in the long run. However, as mentioned above, it does not change in direct correspondence with the changes in producing process, for 1) monopoly price is apt to keep maximum level enough to prevent entry of new capitals from outside, 2) non-price competition is often adapted in the same industry rather than price competition, and 3) maintenance of reserve capacity in average will contribute not to intencify competition from both inside and outside. Usually expenditures for non-price competition and maintenance of reserve capacity are taken as costs and the increase of the costs is said to result the outflow of monopolistic extra profit, but those expenditures are nothing but its transformed form. All of them contribute to keep price rigid and check outflow of monopolistic extra profit. So the same mechanism of its outflow through falling price as under competitive capitalism does not exist under monopoly capitalism. Instead of it, monopolistic extra profit is extinguished directly by paying back a part of it to laborer, to which Galbraith[8] payed attension as a kind of countervailing power. The scale of its outflow is depend on power relation between labor and capital, and rising price caused by the mechanism analized above is one of factors to be considered when labor demands to distribute monopolistic extra profit. Indirect or nominal outflow of monopolistic extra profit is to loose its real commanding power in proportion as debasement of relative price for capitals gaining the monopolistic extra profit though its total sum does not change in money terms. It is closely connected with our mechanism of price rise. But it is quite questionable how effective it is to its outflow. For example, when productivity has risen twice in monopolised industry, prices of all other commodities must rise twice in order to outflow all monopolistic extra profit, that is, price has to rise to a level where differentials of profit rate will even up, but this cannot happen through our mechanism of price rise, for monopolistic extra profit in money term does not change and profit rate of monopoly capital is high, while price is risen in other capitals as much as they keep their tranditional profit rate, and so under our mechanism of price rise differentials of profit rate cannot be equalized, if expanded. Thus we must stress uncompleteness and imperfectness of its outflow through the mechanism of price rise based on productivity differentials, even if debasement of monopolistic extra profit by change in relative price is taken as its real outflow, specially in comparison with complete disappearance of total extra profit on industrial capitalism. Rather our mechanism of price rise may well contribute to make possible of constant and duarable maintenance of monopolistic extra profit, in other words, its nominal outflow through our mechanism of price rise functions as inevitable cost for its constant procurement. For prices rise in order to be able to keep capital and labor in the industries with low productivity which are necessary parts of reproduction of monopoly capitalism. Here we need to remind that it was to mitigate class struggle which is intensified by emergence of monopolistic extra profit that monopoly capitals permit the direct outflow by the paying-back of its part. Thus outflow of the monopolistic extra profit, both direct and indirect, is nothing but socially necessary cost for its constant procurement. Price system established after price rise based on productivity differentials is a combined result of monopolistic pricing policy and price movement of other capitals adapting to it.

[8] See J.K. Galbraith, *American Capitalism: The Concept of Countervailing Power*, 1951.

DILEMMA OF CONTEMPORARY PRICE SYSTEM

As mentioned above, under our mechanism of price rise, deviation of value and price is enlarged in each commodity as far as it is seen individually. But overall deviations are canceled each other and nullified in relative price. The result is overall increase of price level. It means the falling real standard of measure of money if contemporary money can be taken as uncovertible paper money with enforced circulating power which circulates according to Marx's special law of the circulation of paper money.[9] The deviation of price and value is adjusted continuously by debasing real standard of measure of money. That is, relation between price and value (therefore, finally production of gold) is not direct under so called managed money system. It may well be said that creaping inflation is built in on the economy if such process appears continuously. Contemporary price system comes into being by shifting weakness accompaning with maintenance of monopolistic extra profit to debasing value of money. This is the common phenomenon to be seen in developed countries. Such price system is supported by monetary and fiscal policy of the government and will be sustained smoothly in closed system of an economy, but it is questionable whether this price system operates without contradiction in open system. It is the basic dilemma of today's price system of all countries. The dilemma takes a form of crisis of international balance at some countries when price rises are unequal, or it will give rise to crisis of international monetary system, in stead of crisis in one or some countries if prices rise equally in all countries or results of unequally price rise are adjusted in any way. For creaping inflation in each country and increased sum of price of all countries must accompany with shortage of key currency in international trade. It is on word market that the crucial question what is the relation between production of gold and contemporary price system on monopoly capitalism is enquired.

[9] K. Marx; *Das Kapital* vol. 1, chap. 4.