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Notes on Schumpeterian Competitive Power

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Introduction

I'm afraid Schumpeter couldn't finish depicting his own vision of competitive power and / or monopolistic power in his works after all. Though we can know his understanding about the formation and movement of prices in competition and monopoly in his early work, for example, *Das Wesen und der Hauptinhalt der Theoretischen Nationalökonomie*, it is no more than his elementary explanation about the equilibrium theoretical essences in Austrian school economists and others including Walras's and Bhom-Bawerk's works, exclusive of Cournot and Marshall. In his later years' works, *Business Cycles* and *Capitalism, Socialism and Democracy*, we can know he did his best to depict the striking behavior of competitive monopolist and innovative activity in the industrial society. I think he had been matured the theoretical framework through these two books basing on *Theory of Economic Development* he published before.

His penetrating view, so to speak, competitive power theory is my own subject here. I like to call it rivalry. Especially I am interested in the circumstances and features of cutting price used in order to expand entreprenuer's profit by way of the full-cost principle under increasing

returns to scale seeing in the level and output growth. And there is mostly depicting a dynamic process of clever entrepreneur's R & D in the industries by driving competitive power in the very monopolistic circumstances, I guess. Schumpeter's true intention of his elaborate research might exist in the following essence : An clever entrepreneur is able to use his wisdom organizationally and effectively by creating, processing and storing own scarce resources and own innovational knowledge regarding timely opportunities for his survival.

Flexible and Fixed Price Economies

While Walrasian economists used to suppose all goods and services are traded in a perfectly free market, Kaleckian economists did to suppose they are traded mostly by way of the full cost principle. I like to propose to call the former flexible price economy and the latter fixed price economy. In general agricultural products are agreeable to price flexible market, manufacturing products being to fixed price one. In real world we live in the two-sided mixed economy. The introduction of full cost principle into the present industrial society means that people have necessarily the fixed price economy.

Table 1 shows ratio of primary industrial products to manufacturing ones from 1960 to 1996 in several developed countries. These figures are given in order to know mere historical trend. For instance in 1960 Japan had very high ratio but it has rather low ratio in 1996. We can know Japan and Germany is now typical fixed economies. Historically UK used to show rather low ratio since the rise of well-known industrial revolution in 19 th century[1]. USA and UK have higher ratios than other two

Table 1 Ratio of primary industrial products to manufacturing ones

	Japan	USA	UK	Germany
1960	57	23	19	20
1970	26	12	8	8
1980	13	11	7	6
1990	9	11	8	5
1996	6	10	9	4

	France	Italy
1960	31	58
1970	18	34
1980	18	21
1990	16	14
1996	12	11

Source: Comparative Economic and Financial Statistics –Japan and Other Major Countries–, 1983–1998: to be calculated by author

countries in Europe. Generally speaking every developed economy has a common inclination to be fixed price economy with the years. I guess Schumpeter will like to call this economy 'rigid price economy'. In fact he has been very interested in the rigid price under monopolistic practices in depression, not in prosperity in his 'plausible capitalism'. His view in regard to depression is also worth thinking over once again.

His statements are as follows: –under the conditions created by capitalist evolution, perfect and universal flexibility of prices might be depression further unstabilize the system, instead of stabilizing it as it no doubt would under the conditions envisaged by general theory. Again this is to a large extent recognized in those cases in which the economist is in sympathy with the interests immediately concerned, for instance in the case of labor and of agriculture; in those cases he admits readily enough that what looks like rigidity may be no more than regulated adaptation[2]–.

He is likely to suppose these situations of rigid price will be observable in the case of the formation of primary goods and factors of production both in the periods of short-run and long-run. He distinguishes the lower limit of competitive price from the upper one of monopoly price. Hereupon the competitive price means that of equilibrium determined by the power of competitive free market. In general every competitor in the market is likely to offer rather lower price than the normal market price, if possible. But he can't do it. As Stigler taught it to us admirably, -Of course if he cuts price secretly and expands sales immensely, the other 99 firms (in 100 firms) will soon discover their sales are vanishing. But if he is moderate in his sales (perhaps only doubling sales to 4 units) he will reason that the price cutting will not be detected. This reasoning will also be followed by at least 5 or 10 of the rivals, and if 10 double their sales to 4, only 160 (200-40) units will be demanded of the other sellers, each of whom will suffer, with rising animosity, a decline of 11 per cent in sales. This arithmetic portrays the history of a thousand price agreements. We shall discuss monopoly which is what this is, but it seems appropriate to emphasize here that large numbers of sellers not only make the formation of collusive agreements difficult, but also encourage each individual seller to violate the agreement[3]-. On the other hand monopolists hope to raise the normal price owing to some monopolistic practices. Therefore every monopolist is likely to propose his upper limit of equilibrium price, namely, that equated marginal cost with marginal revenue. Though practically he can afford to set the profit-maximizing price, he may dare to cut the price to expand his profit, if possible.

I have a great interest in the optional amount of his profit in changing the equilibrium price upwards or downwards. A great interest

for us exists in whether each competitor or monopolist will be able to expand his profit by falling his price not by raising it. Many economists used to explain that the effect of price change on the amount of profit depends on the extent of competition in the market. They surely believe the larger the extent of that in the market becomes, the larger the extent of efficiencies of every entrepreneur and of industrial organization become. Is this belief agreeable? It is vital of us to notice the difference of perfect competition and excessive competition. In fact this problem does always appear in discussing competitive efficiency itself. The above two words look like even similar meaning at a glance. The former means competition is excessive but the latter means monopoly is excessive. Here I like to say little competition means much rivalry. I like to reckon the traditional competitive monopoly to be 'competitive power' defined anew now, including monopolistic competition. To tell the truth Schumpeter might not like the theory of monopolistic competition itself, as Chamberlin himself poured forth his heart[4]. However cynically Schumpeter's vision about monopoly is more akin to monopolistic competition theory rather than oligopoly theory, I guess.

Now the new word 'rivalry' does not acquire its citizenship in a well-known standard economic theory yet. Though in rivalry theory every producer produces differential goods and services each other, he has many competitors in the market. Here I dare to adopt the concept of 'rivalry' in behalf of the familiar 'competition' only in the monopolistic theory. Besides there are some industrial circumstances we must distinct 'competition' from 'rivalry'. They are equivalent to his own peculiar industrial circumstances which Schumpeter himself has often picked up in his works. Many outstanding economists have taught us definition of

'competition' including three fundamental conditions, namely, innumerable participants, non-differential products and entirely free entry and exit. There are two factors affording a kind of creative destruction to the existing innovative activity and industrial structure. One is price-type factor and the other is non-price one. The former is about the price formation and movement of goods and services. The latter includes 'innovation variable' -total output, method of production, organizational efficiency, profit and the like- and 'strategy variable' - products differentiation, market for sales, routes of materials, R & D and the like. Innovation variable is closely connected with strategy one. For instance when an entrepreneur succeeds in R & D and / or products differentiation, he is able to expand his output and profit. In my opinion Schumpeter attached a special importance to these two non-price type variables with price-type variable. These variables often cause rivalry in behalf of monopolistic forces itself as a kind of competitive power in monopolistic circumstance. Schumpeter told us about an elementary competitive process of economic development, -In general it is not the owner of stage- coaches who builds railways. This fact not only puts the discontinuity which characterizes the process we want to describe in a special light, and creates so to speak still another kind of discontinuity (that is, replacement of main innovator) in addition to the one mentioned above (that is, displacement of the equilibrium state previously existing), but it also explains important features of the course of events. Especially in a competitive economy, in which new combinations mean the competitive elimination of the old, it explains on the one hand the process by which individuals and families rise and fall economically and socially and which is peculiar to this form of organization, as well as a whole

series of other phenomena of business cycle[5]–.

Now the features of new concept 'rivalry' are as follows. The first is that price is not always distant from marginal cost, including the case of equating price with marginal cost. On Producer's side relating price with profit is more important than relating price with quantity. Speaking correctly so–called 'excessive competition' occurs often even among perfect competitive entrepreneurs. This fact doesn't mean too little competition is too much rivalry. The second is that differentiation of products exists definitely in the market among all producers. There is surely visible differentiation even among the delicate airline transportation services supplied by different airline companies. In such situations the supply of consumer's goods and services is subject to mass consumption method and raises the purchasing power of the wage dollar. And in the semi–conductor industry the name of country and of the maker it is produced in, for example, Intel or Toshiba come to a vital differentiation. The third is that barriers of entry and exit are dependent on not only the size of production cost but also rivalry situations with many potential suppliers. Rivalry holds good to make clear discretion of non–price type variable. In the chance of R & D under rivalry situations a considerably high growth rate of demand lead up necessarily rather high technological efficiency. The advantage by this rivalry can induce the entrepreneur realize an experience rule of cost, that is, economy of scale or increasing returns to scale. Besides he is able to get another economic advantages from economy of scope and learning by doing. An efficient technological innovation means that of process of production, quality of products and new market for sales including improving the delicacy of services on producer's side. Sooner or later a drastic price falling is realized in the

market of rivalry through cost falling. In this connection Schumpeter used to refer to the railroad as transportation (a kind of services) industry and the automobile as manufacturing industry. As Schumpeter told us, –The capitalist achievement does not typically consist in providing more silk stockings for queens but in bringing them within the reach of factory girls in return for steadily decreasing amounts of effort[6]–.

Next we will see what happened in the profit when the action of entry took place timely in the airline industry. We'll see briefly its case in deregulation in 1970's especially in USA.

What Happened to their Profits in Rivalry?

Though airline suppliers could be supposed to make large profit at high price only if they attract consumers, they couldn't cut price to attract consumers away from their other suppliers. Under any regulation they were confronted with the problem of making itself more attractive than other suppliers by other means than cutting price. At first 'in regulation' floor price was fixed at the higher than competitive equilibrium price. Every carrier could get sufficient profit without fearing potential entry by new comers. But the coming deregulatory policy obliged to cut the price down under the existing price and to acquire less profit than before. Why did the profit happen to cut? As a matter of fact this is a key point to discuss the innovational economic effects under falling of normal prices. When suppliers are in monopolistic circumstances on the basis of the existing regulated fixed price and they can afford to use their competitive power, that is, rivalry a kind of antinomy may emerge. In traditional economics falling of price is explained by competition in the market. But

this competitive mechanism can't explain the size and direction of profit effects well. Then each entrepreneur has the above non-price type variable (innovation one and strategy one) with price-type variable.

Economist Jordan wrote the essences in his book, -The existence of rivalry among certificated carriers may be considered evidence by some that the cab-regulated airlines do not comprise a cartel. It is important, however, to distinguish between the rivalry for large shares of cartel production quotas and profits, and competition as a kind of market structure. The semantic problem is compounded because in a world of scarcity there is continual and universal competition for goods among rival individuals and group or organization, regardless of the structure within which is competition occurs. Under differing market structures, only the form of competition changes.... therefore, the relevant question regarding the airlines becomes : is the form of competition among the regulated airlines consistent with the implications of the producer-protection (cartel) hypothesis? The purpose of the cartel is to increase its members' profits.... over what could be achieved if the industry were no cartelized[7]-. His cartel hypothesis consists of three conditions. The points are as follows. The first is effectively limited entry and exit. The second is highly controlled and discriminated price. The third is service at lower quantities of output and at the higher quality level. These three points are surely reasonable. As he properly pointed out there, highly controlled and discriminated price combines with limited entry and lower quantity of output. Besides the price level can serve to expand profit for cartel members.

Though he was interested in a peculiar kind of cartel that California intrastate airlines faced in the 1960's, he didn't develop the modern

theory of cartel there. Who knows whether there were a true cartel or the like in the then industry? Generally speaking 'cartel' is supposed to be formed in market structure which many economists used to call 'oligopoly'. This type is a kind of 'group equilibrium' working in the industrial organization known as Chamberlin's monopolistic competition. It is in no doubt rivalry situations. However rivalry doesn't always require any limited conditions of entry and exit. Here is a difference between rivalry theory and traditional monopolistic competition. Though cartel is itself illegal, when the Regulation Board practices his policies as if he approves the action of cartel, it will become to be legal contrary to the entreprenuer's will. Schumpeter has approved the existence of cartel. He said, –our argument does not cover all cases of restrictive or regulating strategy, many of which no doubt have that injurious effect on the long–run development of output... the net effect is a question of the circumstances and of the way in which and the degree to which industry regulates itself in each individual case. It is certainly as conceivable that an all–pervading cartel system might sabotage all progress as it is that might realize, with smaller social and private costs, all that perfect competition is supposed to realize[8]–. In fact we can see a lot of cases the Board could approve it under nominal 'industrial rationalization or contract for production quotas' in the peculiar depression of the developed countries (Viscusi and others, 1998).

Hereafter I like to study a theory of cartel under rivalry. At first I'll see rivalry with contract for production quotas in R & D activity. In the Fig. 1 downward sloping dd is entrepreneur's demand curve and upward sloping LMC and SMC are his long–run and short–run marginal cost curves. LAC and SAC are average cost curves in the same way. MR is

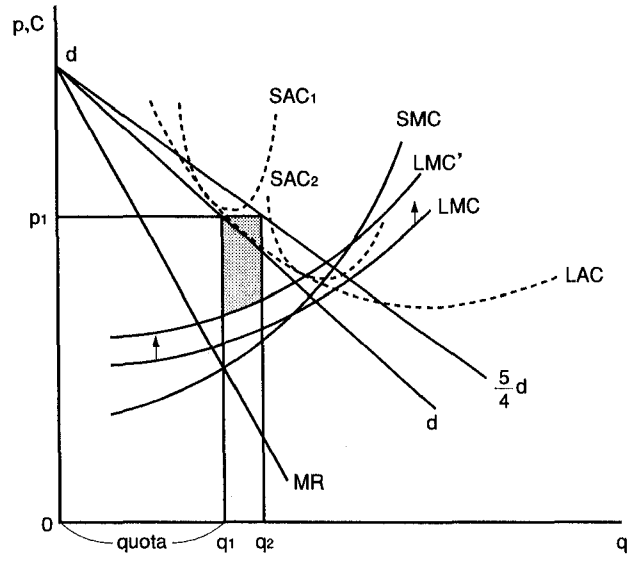

Fig. 1

marginal revenue curve. When the market is under a monopolistic circumstances, the Point (p_1, q_1) corresponding to the intersection of two curves MR and SMC is his profit maximizing point in the short run. In the cartel some of members, however, will dare to expand their profits, if possible. He can justify his quota with the same price. Now if he expand his capacity by 1 / 4 owing to R & D activity, he can afford to sell q_2 equating with 5 / 4 times as much as his present demand.

The cost of R & D must make LMC shift upward to LMC'. Though the long-run cost increase, his profit will expand by the shaded area. Stigler told us the cartel's life, -This is the story of cartels' lives. When this rivalry does not take the form of investment, some other form achieves

the same result. Thus some states have had laws that no one could sell liquor, or gasoline, or some other commodity at less than a designated price or mark-up. A firm will then seek additional patronage by advertising more, giving better service, or some such device. As a result, the cost curves shift upward, and in long-run equilibrium, the long run marginal cost eventually equals price[9]-Though there are several types of cartels in modern economic theory, I guess the cartel which Schumpeter had imaged at that times is the above R & D type. The reason is that this type has R & D as a strategy variable and profit as a innovation variable. Among them the innovation variable is supposed to be a result of being a timely creative innovation.

By the way the experience of regulatory policy in the airline industry began by issuing Civil Aeronautics Act (CAA) in USA in 1938. The interest of every airline company under the governmental regulation was definitely in the formation of price, profit and safety. The policy of regulation ended by issuing of Airline Deregulation Act (ADA) in 1978. Forty years had passed till the deregulation policy was invoked. Then main interest of the carriers were in sustaining competitive power in the industry and expanding his sales and profit by using the creative innovation. That includes increasing profit by advertising more often, producing more delicate services and reforming new organization. At that times at the first time the word of 'deregulation' appeared and many economists were going to discuss the effects of the deregulation of government. What is the theoretical framework explaining the effects? There we can see three vital features. The first is existence of organizational vertical integration. The second is timely chance of additive R & D activity induced by advantage of cost falling. The third is

sustainability of rivalry for acquiring larger share of own sales in the market. All of three features belong to the factors on supplier side.

Besides it is safe to say there are more three factors from the view of industrial policy of deregulation. The first is effects of change of relative prices among several products. The second is effects of controlling barriers of entry and exit through the industrial policy concerned. The third is effects of deregulatory policies on the entrepreneur's budget constraint and potential response to the collusive members. To our regret Schumpeter didn't research these features elaborately.

After approving Schumpeter's vision that 'capitalist economy' is a organic but restrictive or regulating process and market power, namely, some protection from a competitive forcing of prices toward the marginal cost is essential to successful innovation, Mason told us the following about Schumpeter's anti-trust ideologies, -His critique is drastic and effective because it plausibly undermine s the two main pillars of the traditional ideology: first, that market power is the proper object of attack since power means the ability to exploit; and, second, that the preservation of competition, meaning the exclusion of positions of market power, will assure the efficient use of resources. The essence of Schumpeter's position is that market power is necessary to innovation and that innovation is the core of effective competition[10]-.

Schumpeterian Productive Process

At first we like to formulate implicit flow-fund type production function and mark-up principle. Our interest is whether it could be useful to understand an innovative activity in the factory of the firm. An

innovation happens in cooperation with productivities of capital and labor.

$$q_t = \delta F(l_t, k_t; l_t dt, k_t dt)$$
$$dP/dt = dLMC(1 + m)/dt$$
$$m = e/(e - s)$$

Here l_t and k_t mean quantities of capital and labor. q_t is output. These two are measured by 'fund' with time t. And $l_t dt$ and $k_t dt$ are measured by 'flow'. P and LMC are price and long-run marginal cost. δ is time interval as the working day of the factory, so to speak, a kind of dynamic factor (Georgescu-Roegen, 1971). Three values m, e and s are 'mark-up', elasticity of demand and market share. They are supposed to measure on both fund of goods and flow of services. This mark-up is equal to the ratio of price to its marginal cost. And this production function is almost subject to increasing returns to scale. LAC cost curves are supposed to be led from cost minimizing method, after considering productive effects of funds and services in the above production function.

In Fig. 2 we can depict the relation of cutting of price and R & D activity. The vertical axis measures price and cost and the horizontal axis does output of products. The downward sloping curve, DD, is 'firm's expected demand curve'. In this diagram there are two kinds of LAC curves. One is long-run average cost curve (LAC') with prime before adding mark-up m and the other is short-run curve (LAC) without prime after adding the mark-up. There are four points from (p_1, q_1) to (p_3, q_3) on the two demand curves. LAC_1 and LAC_2 are separable each other. LAC_1 means higher cost than LAC_2. When one innovative activity, that is, R & D happens, LAC_1 curve can shift and jump to LAC_2 at the lower part than

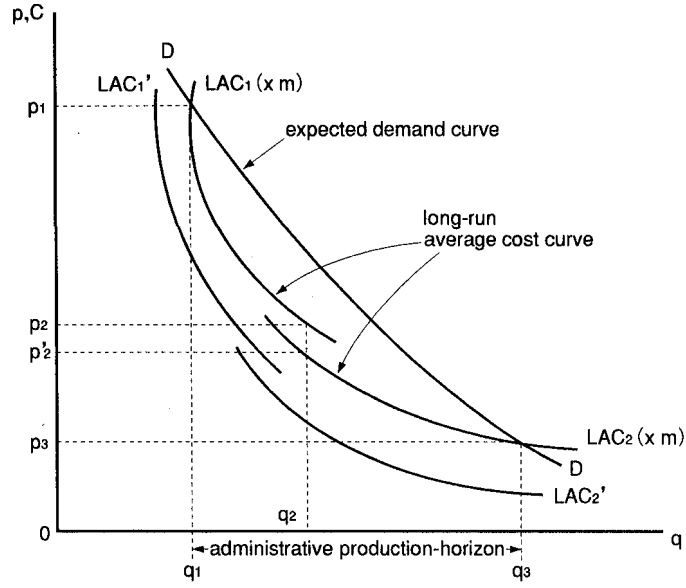

Fig. 2

LAC_1. We can call the concerned zone from p_1 to p_3, namely, from q_1 to q_3 'administrative production-horizon' (Takemura, 1997). With my keen interest Schumpeter had also touched upon the importance of such administrative zone (Schumpeter, 1939). The firm is both able to shift from one LAC curve to another one and able to cut the price of his product by taking a timely innovational chance for R & D. A clever entrepreneur merely implements this R & D activity to gain his additional profit in the end.

As Schumpeter also used to emphasize of importance of the rate of increase of total output, Schumpetarian economists will introduce productivity of factor of production in the production function. Nelson and

Winter (1982) and Winter (1991) developed an evolutionary theory of technical change and simulations of expected level of innovative potential entry in the system he call Schumpeterian regimes. He said on the postulates of his growth model, –The model employed is a Markov model of a single industry in which firms produce homogeneous product and in which cost reduction through productivity improvement is the major competitive weapon[11]–. He also referred to the situations of relatively restrained competition, of a mark–up factor formula based on the 'Cournot conjecture' I didn't dare to state explicitly. From the sight of individual firm the rate of expansion of total output change will depend on the rate of price change. We can say mark–up m changes with the level of market share and the net return of R & D concerned.

Semmler said on Schumpeter's theory in contrast to Marx, –first, competition is not limited to price or quantity adjustments. It is described as an evolutionary process, as a process of 'creative destruction'. The engines of this development are large firms.... The incentives for developing these types of technical change originate in transient surplus profit.... The most important variable for this evolutionary process is the size of the firm.... second, Schumpeter stresses that competition is not necessarily an equilibrating force. When referring to the existence of large firms and their rivalry.... third, as in Marx, competition is an evolutionary process, one of rivalry between firms motivated by the search for surplus profit. He calls this surplus profit the transient 'monopoly profit' of new processes and new products : "Thus it is true that there is or may be an element of genuine monopoly gain in those entrepreneurial profits which are the prizes offered by capitalist society to the successful innovator.... in Schumpeter's view, the large firms are powerful engines of progress and

in particular of the long-run expansion of total output"[12]-.

Generally in being competition any entrepreneur can't yet survive unless he uses his weapon named his new business opportunity of advantage coming from new innovational technology in his own economic and managerial world, as Hayek (1948) taught us. Also although by 'invisible Goddess' Hand the merit of every entrepreneur's existing opportunity disappears sooner or later, the entrepreneur has yet strong incentive to create the next new innovational technology. Even if the equilibrium has come, he can break its equilibrium situation and readjust the market by using his own strong incentive. He can always endeavor to decrease total production cost by falling labor cost and capital cost and the other production cost including transaction cost. He can do it by his own incentive coming from strong expectation of additional advantage for new technological innovation. Technology itself doesn't always fall cost, but entrepreneurs' hard effort to adapt his technological innovation to R & D activity. That is because the activity needs clever and feasible strategies of every entrepreneur concerned.

Hesitating timely R & D activity is severe for entrepreneur's own survival in chronic depression of the economy. In some industries, for example, semi-conductor, automobile and transportation the growth of demand is rather high. There used to be piecemeal falling price in the long-run with the rise of productivity of output. In this type of rivalry suppliers are apt to have moderate concentration of sellers, but to change frequently their own percentage of market share. Each supplier will endeavor to win large merit coming from some variables of strategy and innovation mentioned before. Even if the price can overshoot to the lowest level with almost null profit, there will be the force of recovery to a kind of

pseudo stable equilibrium, in other words, 'the problem of indeterminateness' of final stable equilibrium in Scumpeter's theory. By Schumpeter's vision there is not always a plain economic reason for its equilibrating mechanism toward recovery. In rivalry there is indeterminateness (so to speak, rigid disequilibrium regime) from a theoretical standpoint, as he is also observing. An existence of this mechanism forms an important non-barrier for entry. That is reason why market share is able to keep up surplus profit. And it will lead to larger mark-up m through being unelastic in demand.

Concluding Remarks

Schumpeter used to reckon Walras to be a great theoretical economist. We can see it by the fact he began proposing Walras's theoretical framework in his first book, namely, *Das Wesen und der Hauptinhalt der Theoretischen Nationalökonomie*. I didn't, however, dare to come into the exchange theory of Walras and the contents of the above Schumpeter's book. Because we can't truly understand his 'competitive power' in his view about a certain mixed structure with monopoly and competition, that is, the 'rivalry' which is my typical subject.

Hansen told us Schumpeter's theoretical core admirably. Those are as follows. –Under the impulse of innovational activity, the economic system draws away from the neighborhood of equilibrium. But the farther it moves away from equilibrium the stronger is the fall back to equilibrium. In the downward readjustment the economy is likely to "overshoot". Again the economy is pulled back toward equilibrium. After this process of adaptation and adjustment, this recovered neighborhood of equilibrium

offers a favorable climate for a renewed surge of innovation. Thus in a very fundamental sense, Schumpeter's theory runs in terms of an endogeneous, self-perpetuating process, a process inherent in the inner nature of a dynamic economy.... Rather he followed Juglar's lead -the 'only cause of the depression is prosperity.' This statement he interpreted to mean that depression is nothing more than the economic system's reaction to the distortions of the boom; it is the 'adaptation to the situation into which the boom brings the system'. Innovations inject disturbances into the system. These disturbances cannot be currently and smoothly absorbed. They are 'big' and they disrupt the existing system and enforce a distinct and often painful process of adaptation.... The economic nature of the depression lies in the diffusion of the achievements of the boom over the whole economic system through the process of the struggle for equilibrium[13]-.

The theory of competitive power in Schumpeter's work found us to be difficult. We can't afford to see this kind of theory in his some works, exclusive of his two books, that is, *Business Cycles* and *Capitalism, Socialism and Democracy*. Though we can feel the existence of a unique mixed theory of competition and monopoly, we can't correctly understand it because he didn't propose his concrete model in his work, I guess.

Human beings are able to use their wisdom organizationally and effectively by creating, processing and storing own scarce resources and own innovational knowledge of opportunities for their survival. Public interest means total of social surplus being supported and created by individual interest. Properly speaking the government used to implement a series of new regulations under the slogan of priority of public interest in order to maximize social surplus artificially. But the government will

fail in the end. Although in a human society the portion of total social surplus was shared among private producers and consumers, private producers get larger portion of it after all. The producer has been the only economic unit who shares larger gain from additive for R & D. So-called government failure has been caused by the fact that government herself is not only an experimenter who experiments on creating public interest but also an experimental testee suffering such a test.

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Notes

1. This table is dependent on an excellent idea of Morishima (1984, p. 39). He is making the following table there. The numerical value is by %.

Year	U. K.	Germany	France	Italy
1801	139			
1825–1835			200	
1841	65			
1860–1869		133		275
1872–1882			140	
1896–1900		46		214
1901	15			
1907	18		95	
1913		51		214
1919	16			181
1929	13	33		138
1939	13			103
1949	15	23	30	91
1959	10	15	23	59

–Ratio of agricultural output to manufacturing output–

2. Schumpeter (1943), p. 95.
3. Stigler (1966), p. 91.
4. As Chamberlin told us, Schumpeter used to think 'monopolistic competition' is not vital in 'the stationary or circular flow' at the least. See Chamberlin (1991) in Wood (ed.), pp. 214–222.
5. Schumpeter (1934) pp. 66–67.
6. Schumpeter (1943), p. 67.
7. Jordan (1970), p. 6.
8. Schumpeter (1943), p. 91.
9. Stigler (1966), p. 235–236.
10. Mason (1991), pp. 223–224.
11. Nelson and Winter (1982) and specially Winter (1991 pp. 271–304). In his model mark-up formula is $m = \{e + (1 - s)\psi\}/\{e - s + (1 - s)\psi\}$. Here e and s mean elasticity of demand and market share, under the given 'Cournot Conjecture' factor ψ influenced by the elasticity of supply curve. By his simulation when s increases e decreases, in other words, demand becomes more unelastic with the restrained entry.... In the case of $\psi = 0$, it is equal to the ordinary mark-up in the text.
12. Semmler (1991), pp. 76–78.
13. Hansen (1991). p. 211.

Notes on Schumpeterian Competitive Power

Shosuke Takemura

There is a saying that 'look before you leap'. Though many economists look to be acquainted with the commonly accepted vision of Schumpeter, I am wondering if it isn't time now to think over the appropriateness. His view about a certain mixed structure with monopoly and competition is the typical subject. In this paper I'll focus his logic of the competitive power I've seen in his several works. The main points are as follows. His competitive power vision is well understood by utilizing a certain meaning of 'rivalry' I call it. The reason is simply that this kind of power is agreeable to producing innovative activities. As some conclusions I will assert that Schumpeter's competitive power is filled with lots of splendid ideas for the modern economic theory. His prominent point, so to speak, consists in the balance between the innovative activities and the possible equilibrium in rivalry.