【研究論文】

New economic order in the age of the "post crises" and Japanese economy

— The emerging market in the Asia and Japanese local industries —

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Preface

I insisted that Japanese economy over-depending on offshore market has two disadvantages. One is the loss of Japanese wealth under the depreciation of the Yen. Because Yen depreciation has been carrying Japanese wealth from Japan to foreign countries through the dumping of the technology, the knowledge and the ability of Japanese labours. Another one is the reduction of labour's relative wage. Because over-dependence on offshore market especially on newly industrialized countries accompanied by low labour cost has aggravated the wage level in Japan resulting in the relative decrease of domestic market. Then we should select the policy which should be relatively given the importance on the domestic demand expansion.

By the way, I insisted that, for the purpose of the domestic demand expansion, we should adopt a new economic policy accompanied by the "structural expansion of the domestic demand".

I will insist that the importance of such a policy — namely the "structural expansion of the domestic demand" — should be moreover stressed in the age of the "post economic crises", because it is expected that great structural change of global economy will especially emerge just in such age.

What does mean great structural change? It will be the formation of new grobal economic order on multipolar base — with which order Japan will be unavoidable to deal — accompanied by the emergence of newly industrialized countries especially in the Asia on the background of the advancement of the "third industrial revolution" on the global level.

I will study the "structural expansion of the domestic demand" from the viewpoint of "new deal" especially focusing on Japanese local industries in this article.

I. The emergence of industries related to the domestic demand

1. What are industries related to the domestic demand?

It is inevitable that industries will emerge related to the domestic demand under the

expansion of the domestic demand from medium-term and long-term view points.

Then we have to study industries related to the domestic demand at first. There are two factors which have brought about the consumption slump. One factor is the anxiety against old age. Another one is the unstability of employment. I will take up the former namely the anxiety against old age. Because it has deeper relationship with the future of Japanese society.

From such kind of view point, I can point out industries related to the domestic demand as follows. Firstly I will point out the importance of the medical industry, the nursing business and the care business. Secondly I will point out residence and urban industry oriented to age group. Thirdly I will point out the food industry and the agriculture contributing to the formation of permanent home for age group. Fourthly I will point out the childcare business, the education for next generation and the expert training aiming for overcoming an age of low fertility in close relationship with an aging society. Lastly I will point out the technology development in environmental/new energy industries which will be expected to contribute to the foumation of the framework of low fertility and aging society.

2. A potenciality of industries related to the domestic demand

What will become of the feasibility of industries related to the domestic demand? We will adopt the medical industry • the nursing business • the care business and environmental/new energy industries to study this issue.

(1) The medical industry • the nursing business and the care business

At first, we will take up the medical industry • the nursing business and care business because these industries have familiar relationship with the society of old age. Employees in the medical industry • the nursing business and care business are largely going to increase. Employees in main 7 types of job related to the medical industry and the nursing business have increased about 10% in the term from 2000 to 2006, and employees in jobs related to the care business have increased about two times in same term, while whole employees in Japan have decreased about 1% in the same term (Note 1).

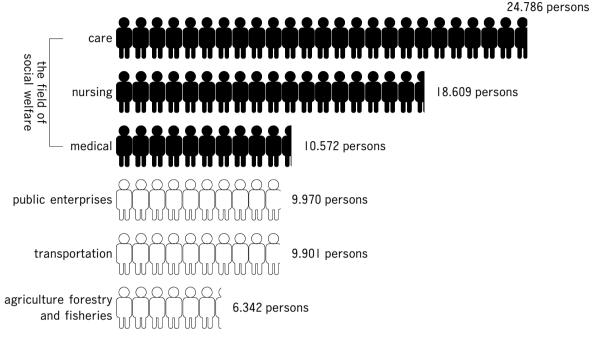
We cannot neglect the fact that economic repercussion effects due to the medical industry • the nursing business and the care business are large. Firstly we will check the case of the production. The production inducement effect of the medical industry • the nursing business was 4.2635 (a coefficient, in the 2004 year) and its effect of the care business was 4.2332 (ibid), while the production inducement effect of the public enterprises was 4.1149 (ibid) and its effect of whole industries in average was 4.0671 (ibid) (Note 2).

Secondly we will observe the case of employment. It is calculated that the employment creation effect in the care business per Yen 100,000,000 demand increase is twice time compared

with it in the public enterprises (See the Chart & Table 1).

[Chart & Table 1] The comparision of the employment creation effect of industries in the field of social welfare land other industries

the emplonment creation effects per ¥100 million demand



(Source) Takanobu Kyogoku "Sustainning effects of consumption and employment" (Asahi Shinbun April 19th, 2009)

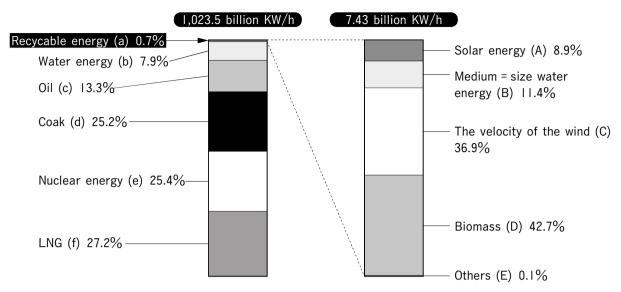
Moreover we can expect that the medical industry • the nursing business and the care business have a possibility of increase in the near future (Note 3).

(2) Environmental/new energy industries

We must note a potenciality of the growth of environmental/new energy industries. Especially we should put the importance on remarkable development in natural energies consisting of generations of electricity using the solar energy, the velocity of the wind and the terrestrial heat etc. There are two characteristics in this development. First one is the characteristic in which we can difine its development as the "revolution of material" resulting in the "revolution of products". Second one is the characteristic in which we can find its development especially on the global level. In conclusion, we can define these characteristics in this development as the "third industrial revolution".

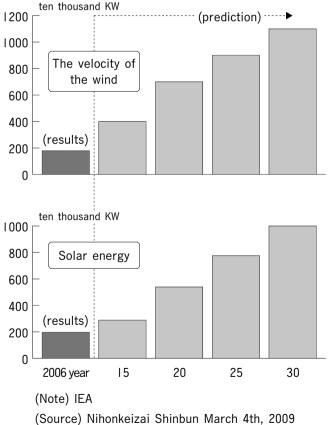
According to IEA (Inernational Energy Agency), it is expected that the amount of the Japanese market both of the generation of electricity using the solar energy and the generation of electricity using the velocity of the wind will increase five times in the year 2030 copmared with an actual result in the year 2006 (See the Chart & Table 2-[2]).

[Chart & Table 2]
(1) The capacity of the generation of electric power in Japan (2008 year)



(Note) Total power (1,023.5 billion Kw/h) = (a) + (b) + (c) + (d) + (e) + (f) Recycable energy (7.43 billion KW/h) (a) = (A) + (B) + (C) + (D) + (E) (Source) Asahi Shinbun October 10th 2008.

(2) The scale of new energy market in Japan (the capacity of the generation of electricity)

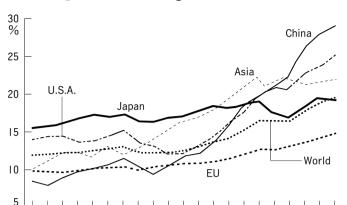


But even the increase of five times in Japan is outdone by another countries (Note 4). According to IEA, too, it is predicted that the capacity of the generation of electricity using the solar energy will increase from 7,000,000 Kilowatt in 2006 year to 72,000,000 Kirowatt in 2020 year resulted in the increase of 10 times in the case of the world (Note 5). Concerning to the generation of electricity using the velocity of the wind, IEA predicts that its share in whole capacity of the generation of electricity will increase from 2% in the year 2006 to 7% in the year 2030 (Note 6).

Moreover we should not neglect of economic and employmental effects of natural energy. According to the test calculation by the Ministry of Economy, Trade and Industry, the amount of employment which will be created by the industry related to the generation of electricity using the solar energy will increase from 12,000 person at present to 110,000 persons in the year 2020 resulted in the increase of 10 times. The Ministry of Economy, Trade and Industry calculates that the economic effects will reach 10 trillion Yen resulted in the increase of 10 times, too (Note 7).

Moreover, as many governments especially in advanced countries are going to advance the development of technologies in natural energies, the development of natural energies will be steeply accelerated in the near future (Note 8).

- (Note 1) Refer to Nihonkeizai Shinbun March 23rd 2009.
- (Note 2) Ibid
- (Note 3) For instance it is reported that Japanese government intends to increase employees of the care business from present 1,300,000 peoples to 2,200,000 peoples in the year 2020 (Refer to Asahi Shinbun April 10th 2009). But, nevertheless there is a possibility of growth in fields of the medical industry the nursing business and the care business, we cannot neglect the fact that there are many and severe problems in these fields at present. Then it should be stressed that the growth and the reform are two sides of the same coin especially in fields of the medical industry the nursing business and the care businessne.
- (Note 4) The development of environmental and new energy industries needs the advancement of hightech industries on the other hand, because the development of environmental and new energy industries owes to the advancement of hightech industries as a basement technology. But, related to the advancement of hightech industries, Japan has been already outdone by China, U.S.A. and Asian countries (See Chart & Table 5).



[Chart & Table 5] The ratio of hightech industries in manufacturing

- (Note) I. Share on the base of sales.
 - 2. Hightech industries cousist of aerospace industry, medical industry, computer industry, communication and scientific machinery.

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2001

99

(Source) Risaburo Nezu "The industrial Policy under the economic crises" (Nihonkeizai Shinbun April 14th, 2009).

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- (Note 5) Refer to Nihonkeizai Shinbun March 5th 2009. Still more, related to the generation of electricity using the solar energy, it is estimated that the amount of demand on global level for the solar battery which is inevitable for the accumulation of the generation of electricity will increase from the amount in 2007 fiscal year to the amount of 2.8 times in the year 2012 and will moreover increase to the amount of 25 times in 2020 year (Refer to Asahi Shinbun April 10th 2009).
- (Note 6) Refer to Nihonkeizai Shinbun March 5th 2009.

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- (Note 7) Refer to Asahi Shinbun March 19th 2009.
- (Note 8) EU aims to increase the ratio of natural energy in electricity consumption at 20% in 2020 year (Refer to Nihonkeizai Shinbun March 16th 2009). U.S. government adopts the policy that it will supply 20% of electricity demand by the generation of electricity using the velocity of the wind till 2030 year (Ibid). Japanese government plans that it will increase the amount of the generation of electricity using the solar energy at 20 times in 2020 (Refer to Asahi Shinbun April 10th 2009). Lastly, it is reported that IEA predicts the share of renewable energy consisting of sola energy and wind enrgy etc. in the world energy supply will increase to a third till 2030 year (Refer to Nihonkeizai Shinbun October 7th 2009).

II. Industries related to the domestic demand and to the emerging market in the Asia — the significance of "strata economic zones"—

What kind of relationship does industries related to the domestic demand mentioned-

above have with emerging markets in the world especially in the Asia? We have to study this issue because, even if we call new industries in the age of the "post economic crises" as industries related to the domestic demand, the market of these industries is not neccessarily restricted only in the domestic market. These industries have familier relationship not only with domestic market but also with global market especially with the emerging market in Asia.

1. The industries related to the domestic demand and local induastries

Then we will study what kind of relationship does industries related to the domestic demand have with local industries at first.

(1) The "economic and social zone"

In Japan now local economy and local life have already been performed on the level of the local zone which has been formed across borders among municipalities. We call such a local zone as "economic and social zone". Its concept is as follows.

[Economic and Social Zone] ⟨surrounding B town⟩ <surrounding D city> manufacturing manufacturing (industrial area) (support of industrial promortion) ⟨core city A city⟩ universities etc commerce, survices commuting agriculture residents ---> shopping 🚓 residents ⟨surrounding C town⟩ ⟨surrounding E village⟩

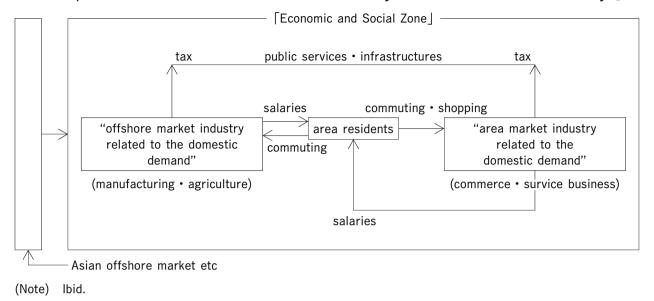
[A concept of the "economic and social zone"]

(Note) Original data owes to Ministry of Economy, Trade and Industry The local area management in the age of population decrease (December 2005)

(2) A system of the "favorable cycle" in the "economic and social zone" owing to the cooperation between the "offshore market industry" and the "area market industry"

If we are able to classify industries related to the domestic demand in two industries which consist of the "offshore market industry related to the domestic demand" and the "area market industry related to the domestic demand", we can expect the fomation of a system of the "favorable cycle" in the "economic and social zone" owing to the cooperation between the "offshore market industry" and the "area market industry" (Note 1). Its image is as follows.

[A system of the "favorable cycle" in the "economic and social zone" owing to the cooperation between the "offshore market industry" and the "area market industry"]



2. The formation of "strata economic zones"

In the above mentioned scenario I will stress the important point that the "offshore market industry related to the domestic demand" has familiar relationship with emerging markets in the globe especially in the Asia. There are two reasons why I insist such a point. One is the characteristics of the East Asian economic zone. Another is a possibility of cooperation on local level.

Firstly we will pick up the first point. In the East Asia, economic zone has been formed as "natural economic zone" in the case of which the formation of economic zone has been owed not on the cooperation among nations but on the cooperation among private sectors including local districts and international division of labours.

Owing to such kind of characteristics, the cooperation between Japan and East Asian countries has assumed the characteristic of the strata. Namely the strata consists of the "economic and social zone" as basement zones, the "broad local economic zone" as first floar zones and the "East Asian economic zone" as a regional economic zone. Moreover in this case the "strata economic zones" is the concentric economic zone in which the "economic and social zone" has the concentric position in economic zone. Then it is possible that the "offshore market industry related to the domestic demand" has familier relationship with emerging markets in the globe especially in the Asia resulting in the enforcement of the "favorable cycle" in the "economic and social zones" owing to the cooperation between the "offshore market industry related to the domestic demand" and the "area market industry related to the domestic demand".

3. The significance of the "broad local economic zone"

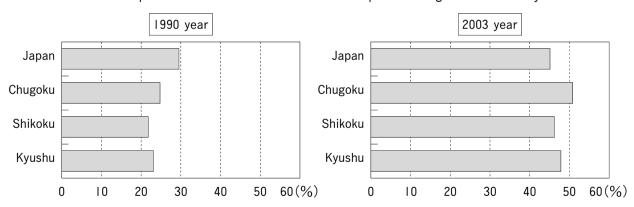
Secondly we will take up the cooperation especially economic cooperation between Japanese regions and the East Asia. A key factor which plays the decisive role in the cooperation between Japanese regions and the East Asia is the "broad local economic zone".

(1) A possibility of the cooperation between Japanese regions and the East Asia

There are many formations of the "block zones" as the basement of the "broad local economic zone". For instance, in Kyushu Block (Note 2) about 80% of total flow of population owes to inner block flow. In Shikoku Block (Note 3) the inner block ratio increased from 46.8% in 1990 year to 65.6% in 2000 year. In Touhoku Block (Note 4) that ratio increased from 18.5% in 1965 year to 36.2% in 1995 year. Needless to say, there is a domestic reason inducing the increase of the inner block flow. That is the arrival of the old age accompaned by the low fertility in which age it is necessary to enforce the core function of urban districts in "block zones" aiming to level up many social services.

But we cannot neglect the fact that there is another reason inducing the increase of the inner block flow. That is the advancement of the cooperation between Japanese regions and the East Asia. For instance, if we observe the international division of labour on the block level, we can find the fact that the ratio of the export from Shikoku · Chugoku · Kyushu Block toward East Asian countries · districts comparing total export from these Blocks toward whole countries · districts in the world has been over national level in 2003 whereas that ratio had been under national level in 1990 (See the Chart & Table 3).

[Chart & Table 3]
The Share of the export towards East Asian countries in the exports of Chugoku • Shikoku • Kyushu Block



(Source) Ministry of Land, Infrastructure, Transport and Tourism [White Paper on Land, Infrastructure, Transport and Tourism in Japan] (2005) p. 61

(2) The role of the "Kyushu Broad Local Economic Zone"

We should notice the "Kyushu Block" especially. In the case of the "Kyushu Block", the ratio of passages from this Block toward East Asian countries · districts comparing total passages from this Block toward whole countries · districts in the world has been 60.3% in 2000 year in which ratio the "Kyushu Block" has not only exceeded national level but also recorded most highest level than other "Block"s (See the Chart & Table 4-[1]). On the other hand, the ratio of passages from East Asian countries · districts toward the "Kyushu Block" comparing total passages from whole countries · districts in the world toward this Block has been 73.7% in 2003 fiscal year in which ratio the "Kyushu Block" has not only exceeded national level but also recorded second level succeeding to the "Hokkaido Block" (See the Chart & Table 4-[2]).

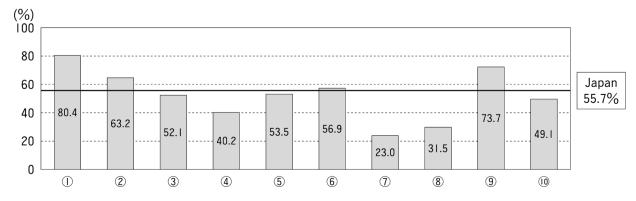
[Chart & Table 4] Offshore movements according to blocks

(I) The ratio of foreign voyage toward East Asia according to blocks (2000 year)

(person)

Block	Total	toward East Asia	
① Hokkaido	401,793	149,594	37.2%
② Tohoku	603,506	287,244	47.6%
③ Kanto	8,069,981	3,365,461	41.7%
4 Hokuriku	385,012	190,147	49.4%
⑤ Chubu	2,008,263	927,862	46.2%
6 Kinki	3,421,235	1,673,390	48.9%
① Chugoku	690,315	381,133	55.2%
8 Shikoku	321,133	161,512	50.3%
9 Kyushu	1,256,728	757,303	60.3%
(1) Okinawa	93,720	52,493	56.0%
local districts	3,752,207	1,979,426	52.8%
Japan	17,251,686	7,946,139	46.1%

(2) The ratio of tourists from five countries and districts in East Asia to Japan (2002 fiscal year)



(Note) Five countries and districts in East Asia are Korea, Singapore, China, Taiwan and HongKong. (Source) Ministry of Land, Infrastructure, Transport and Tourism [White Paper on Land, Infrastructure, Transport and Tourism in Japan] (2005) p. 59-60

The "Kyushu Block" has familiar relationship with East Asian countries · districts not only in the field of the flow of the population but also in the field of international division of labour. As already mentioned, the ratio of the export from the "Kyushu Block" toward East Asian countries · districts comparing total export from this Block toward whole countries · districts in the world has been over national level in 2003 year whereas that ratio had been under national level in 1990 year (See the Chart & Table 3).

Then we are able to conclude that, in the case of Kyushu district, the advancement of the "block zone" namely the "Kyushu Block" has the coincidence of the formation of the "broad local economic zone" namely the "Kyushu Bload Local Economic Zone".

Moreover, from the experience of Kyusyu district, we are able to conclude that, if we are successful in building this coincidence of the advancement of the "block zone" and the formation of the "broad local economic zone" on other districts especially on the Japan See coastal districts which have advantageousness to get access to emerging market in the Asia especially in the North East Asia, we will be able to obtain the formation of "strata economic zones" on Japan See coastal districts being expected to contribute to re-vitalaize of local industries especially in these districts, too.

- (Note 1) There are three kinds of cooperation beteen the "offshore market industry related to the domestic demand" and the "area market industry related to the domestic demand". First one is the collaboration among industries, universities and local governments. Second one is the tax system contributing to redistribute local incomes. Third one is the role of local banking systems.
- (Note 2) Kyushu Block consists of Hukuoka prefecture, Saga prefecture, Nagasaki prefecture, Kumamoto prefecture, Ooita prefecture and Miyazaki prefecture.
- (Note 3) Shikoku Block consists of Tokushima prefecture, Kagawa prefecture, Ehime prefecture and Kooti prefecture.
- (Note 4) Touhoku Block consists of Aomori prefecture, Iwate prefecture, Miyagi prefecture, Akita prefecture, Yamagata prefecture and Fukushima prefecture.