The Two "Lost Decades" and Thereafter

— The Japanese Economy amid a Global Multi-Polar System —

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1. Preface — Transition from an Economic Great Power to a Long-Lasting Sluggish Economy, and How Is It in the Near Future?

1. 1 From A "Lost Decade" to Two "Lost Decades"

The Japanese economy is now in the midst of the great transition of its history. Looking back on its past, our ancestors in Meiji period went on with modernization toward the western standards from its zero state, and it resulted in so much economic strength as to confront the Western powers on equal terms only after 30 years or so. Also, after World War II, Japan played an economic success story: although it had lost almost all its industrial infrastructure, Japan succeeded in restructuring it only in ten years or so, led by the strong industrial policy initiatives by the government, and then, it extended its economic development to be an economic great power in the world. The average yearly growth rates of its economy during the 1960s attained to a level of ten percent. During the 70s, when the world was under the great changes of international economic environments such as a transition to the floating exchange rate system and an occurrence of the oil crisis, the Japanese economy maintained the growth largely based on the advances of the industrial technology; in 1987, Japan almost caught up with and seemed to get ahead of the United States in terms of per capita national income. This made much of it as "Japan as Number One."

However, success story of the Japanese economy did not continue beyond those years. On the basis of the accumulated results of its long economic growth, Japan should have continued steady efforts such as creation of innovative firms and of new markets by encouraging competition, qualitative improvement of education, and so forth, in order to make steady structural reforms and investments necessary for its future sustained development. But, more than that, the whole national economy from firms to ordinary people headed toward too much speculative behaviors. That caused asset prices

to skyrocket between 1987 and 1990. It is said that the bubble economy is not noticed by people until it actually bursts. It was recognized to become real early in 1990; at first, stock prices which had reached to the highest at the end of 1989 turned into a crash as soon as 1990 began, and land prices too went to drop sharply after September of the same year. The fall and sluggishness of asset prices extended for more than ten tears after that. Due to that, many financial institutions were landed with bad assets and verged toward falling, and then, the effects reached the real economy. This is what is called the "Lost Decade".

After that, policy measures, though late in being taken, began to have some effects. In 2002, the government declared that the economy had bottomed out, and the Japanese economy recovered to the extent that it maintained the real growth rate to be around 2% consecutively until 2007. However, it can be easily understood that this situation does not mean a termination of the long sluggishness of the Japanese economy, only by a brief examination of its contents. While the Japanese economy was going well for a long period until the 1980s, it piled up the equipment investment, which brought the gap between supply and demand to the national economy by the burst of bubble. And after 1992, a GDP gap of the Japanese economy came to have continuously negative values clearly in figures. That is the reason why the Japanese economy after 1990 is said to be in two "Lost Decades" until the present. The recovery seems to be delayed another few years due to the "3·11 Great Disaster" that struck Japan in 2011.

1. 2 The Japanese Economy amid the Global Change of Economic Environment

We come to a view that perhaps the "Lost Two-Decade" economy of Japan was not only a single phenomenon of trend change that occurred to a country's economy in the flow of the time, but furthermore a phenomenon brought by some—fundamentally important problem. That is, during the "Lost Decade" of 1990s, both firms and the policy authorities concentrated their interests just on reconstruction of the domestic economy collapsed by the burst of bubble, on the basis of the traditional structure system of the Japanese economy which had been established in the success story during the period of high economic growth from the postwar recovery to the 1980s. While they were so doing, the structure of the world economy was in the process of turning greatly to a multi-polar direction marked by the growing importance of Asian economies, beyond the progress of globalized activities of market economy with the US as the central player.

In Japan, however, it seems that both firms and the policy authorities did not come to fully understand that changing situation, and that they had much less the necessary policy considerations for it. At the present after it passed the period of high growth, the Japanese economy still has the structural characteristics to be reformed from the viewpoint of the standards of the advanced economies; for instance, they are various sorts of measures subsidizing domestic firms which obstruct international competitions, hindrance factors against foreign investment, rigidity of labor market excluding foreign laborers, unhealthy finance system relying on national savings, and so on. They make up the cause of completely leaving the Japanese economy behind the present current of the world economy.

The Japanese economy spent the 1990s, leaving those problems as they are without any improvement. This is the main cause of the fact that Japan still lags behind the other main countries of the world in economic recovery since the start of this century, even after the global financial and economic crisis occurring in 2007 through 2009 in the process of economic globalization, and that a "Lost Decade" has extended to two "Lost Decades". However, in order to break out of this long-term sluggishness, the Japanese economy is required to do works going beyond the traditional political efforts based on the economic reasoning. The special social and economic structures of the country have taken root in the Japanese society, producing and involving many vested rights and interests, all through the period of its high economic growth. They have to be transformed so as to adapt to the changes of world trends which have been marked in these twenty years, and what is needed now for all of the people, the firms and the government in Japan is to make efforts for it and to introduce into the society the leadership indispensable for that structural transformation.

1. 3 The Subjects in This Paper

When we try to analyze the present state of the Japanese economy focusing on its two "Lost Decades", it ought to become clear that there is a problem of the structural characteristics of Japanese society in the background of the firms' behavior and political actions taken during the period. And, it will be perhaps after around 2030, almost 20 years from now, that the result of the measures taken at present to those problems will clearly appear in the real economic society, since they are the structural matters of the society.

Based on what is mentioned above, the title problem of this paper will be

discussed in the following order. In section 2 which follows, appreciations by foreign observers are mainly followed about the Japanese economy from the 1970s to the beginning of this century. When we look back on appreciative activities after some lapse of time, we realize that frequently the major points of a problem are grasped appropriately by the appreciations of the observers who are not members of the related society with their eyes fixed on the movement of the world, apart from conformity of their predictive discourse with the actual result.

In section 3, we examine contents of some theoretical analyses about the cause of the long sluggishness of the Japanese economy. We think that, in order to press the Japanese economy of the near future to make necessary structural changes, examination of the results from elaborate theoretical and empirical analyses should be needed amid the current of changing world economy, besides relying on the discussions of observers.

The conclusion of those analyses based on economic theory includes the substance which is hard to be denied as solid guidelines for the revival of the Japanese economy. In many cases, however, structural reformations of the Japanese economy are required for realization of those guidelines, which ultimately require the structural change of the Japanese society itself as the basis of its economy. This paper goes so far as to discuss this problem. That is the topic of section 4.

Then, in section 5, main points and results of the analyses discussed in the preceding sections are systematically arranged. Subsequently, we consider what should be done at present in order to lead the situation expected for the future of the Japanese economy to a brighter direction even somewhat, and close this paper.

2. The Transitions of the Japanese Economy and its Structural Characteristics—From a Social and Economic Point of View

2. 1 The Growth Process of the Postwar Japanese Economy

At the beginning, we have a look over the growth process of the postwar Japanese economy in changing figures of the growth rate. Table 1 shows the trend of the nominal and real values of the Gross Domestic Products (GDP) represented by the average values of yearly change rates (in calendar year) for each of five-year periods.

At first glance, what attracts our attention should be the high growth rates of the Japanese economy up to the 1970s, in comparison with its present growth rate. Japan had lost a quarter of the national wealth and had almost all resources for productive

Table 1 The Long-Term Trend of the Japanese Economy in View of Changes in GDP Growth Rate

Term Division	1956-60	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90
Nominal Values	14.0	15.5	17.4	15.2	10.1	6.1	6.4
Real Values	8.8	9.2	11.1	4.5	4.4	3.1	4.8
Term Division	1991-95	1996-20	00 2001	1-05 200	06-10		
Nominal Value	2.5	0.4	- 0	.5 -	0.9		
Real Values	1.5	1.0	1	.3	0.2		

Source: Cabinet Office, System of National Accounts, www.esri.cao.go.jp/jp/nsa/sokuhou/

Note: Figures are average numbers of yearly growth rates of each term period.

activities destroyed. In order to recover from that situation, the government strongly pushed ahead with emergency economic policies, such as the "Weighted Production System" (Keisha-Seisan-Houshiki) intending that the government threw the limited resources intensively into key industries such as electric power, coal mining, and iron and steel. Owing to such a policy, Japan realized an unexpectedly early economic recovery, the situation of which went so far as to be declared "it is no longer postwar" in the Economic White Paper published by the Government in 1956 which is the first year appearing in Table 1. It is certainly said that Japan was blessed with a good condition of having the special procurements caused by the Korean War. After that, along with the government policies such as the "Scheme of Doubling Income" (Shotoku-Baizou-Keikaku), international competitiveness of the Japanese manufacturing industry became strengthened with the improved production facilities equipped with the newest technology after the old production base was cleared away by the war, and so the Japanese economy realized continuously the yearly growth of 17 to 18% in nominal terms and of 10 to 12% in real terms in the latter half of the 1960s. Then, in 1969, the economic scale (GDP) grew up to be ranked the second in the world next to the United States.

Entering into the 1970s, the Japanese economy still maintained the high growth with the nominal growth rate over 10%, but there occurred structural changes in the world economy such as the stoppage of dollar conversion in 1971 (what is called the "Nixon Shock") and the oil crises that took place twice in 1973 and 1979. Even in such events, although the Japanese economy had to bring down its real growth rate

into minus 1.2% just after the first oil crisis, it maintained the growth rates of 4 to 5% in almost all the other years. While other advanced industrialized countries suffered from economic recession caused by the oil crises, the Japanese economy showed an early recovery with the background of the large-scale stimulus measures by the government. (For that sake, it came to issue deficit-covering bonds every year except 1991-1993 in and after 1975.) The fundamental reason for the recovery was that the Japanese economy succeeded promptly in an innovation of changing its production into the energy-saving system from the previous system relying on the low-priced oil.

2. 2 The Analysis by Vogel's "Japan As Number One"

It was "Japan As Number One" (Vogel, 1979) by Ezra Vogel, a sociologist of Harvard University in the United States that tried to reveal the strength of the Japanese economy presented by the successes from the post-war recovery to the skillful measures against the oil crises.

Where did he find the root of the Japan's success? He consider that it lies basically in the group directivity (that is, Japanese people's disposition to behave in groups with emphasis on internal cooperation and consensus) in the cultural traits and that the success was brought by the effective work of the organizational strength attaching importance to the consensus and the policy measures under the government direction. Concretely speaking, in firms, a relationship on mutual trust between organization and members cultivates a sense of belonging to their organization and processes the information smoothly in it, and employee education and reeducation based on the lifetime employment system effectively accumulates and stores the information within the organization; he describes that those are the fundamental cause of Japan's success. Besides, he writes that the bureaucratic system played an important role during the growth process of the Japanese economy. He says that the system is characterized by the political actuality that both the functions of drafting regulations and executing them are exercised exclusively by a related government office, particularly the then Ministry of International Trade and Industry, which regarded such regulations as standards or guidelines and executed the administrative power at their direction so as to suitably respond to the international situation and the industrial movement from time to time.

It does not mean that the author praises all those characteristics of the Japanese society as the sources of Japan's success. Having enough recognition about problems of the Japanese society, he keeps the remarks on them within the extent related with the

purpose of this book of giving American people some suggestions for improvements of their country. Among Japan's problems he pointed out while intentionally narrowing them down, there is a problem of Japanese education, especially that of the university education.

As the problems of the Japanese society except the university education, it is indicated that the group directivity has a risk of suppressing individual rights, individuality, and creativity, and that in the Japanese society, while strong creativity is shown in the field of asking cooperation in a group, the field of basic research falls behind the others since that field is based on individual's originality. He indicates that it might change into a risk factor to Japan's future development.

The author's analysis is for the growth process of the Japanese economy until the end of 1970s shown in Table 1, and the Japanese model above described was for the growth period when Japan could follow the advanced economies. It was an effective system suitable for realization of high growth in the background of the international economic environment and the political ground at that time. Since then, however, Japan's economic and social conditions have changed.

Mr. Vogel forecasts that when the Japanese economy enters into the slower growth period, the traditional systems supporting the long-range economic growth will be eventually in jeopardy, and then he concludes his "Japan As Number One" with foreseeing that the Liberal Democratic Party being in power for a long time all through the high growth period will erode its political ground as the support for the conservative leadership will decline (Vogel, 1979, p.247).

In January 2010, after 30 years of publishing this book, Mr. Vogel told in Newspaper about the situations of Japan in 20 to 30 years, that is, in around 2030 to 2040 (Vogel, 2010). There, he anxiously expressed himself, saying that, though the Japanese will get worse off from now, they are satisfied with the present situation and have a little sense of crisis about it.

2. 3 The Japanese Economy after the High Growth — "The Sun Also Sets"

After the high growth period, the Japanese economy in the 1980s, though the growth rate slowed down, boasted the high competitive power superior in the world on the basis of its production facilities equipped with the newest technology introduced during the high growth period. Based on that, from the beginning of the 1980s, its trade surplus came to stay, and in 1986, Japan became the greatest creditor in the world with

the net foreign assets growing rapidly. After the middle of the 1980s, in the progress of internationalization and liberalization in financial market, the "Plaza Accord" was reached among the major countries in 1985 for the sake of rectifying a high dollar rate, and joint intervention was taken into the foreign exchange market of the world by each of these countries.

In the strong situation of the Japanese economy following the high growth period, "The Sun Also Sets — Why Japan Will Not Be Number One" (Emmott, 1989) was published by Bill Emmott, an editor-in-chief of 'The Economist' in 1989. In this book, the Japanese economy after the 1980s was discussed just ten years from Mr. Vogel's book taken up above, from viewpoint of an economic correspondent well-informed about Japan. He gave not a few remarkable structural analyses.

He also pointed to formation of group consensus along with effective execution ability and directive power of the government officials as the motive that brought the postwar success of the Japanese economy, but he stated clearly that the future movements could not be known simply by making a simple extrapolation of the trends based on such a social tradition and structure. And he further indicated that the seeds of their own destruction were often contained in those traditional trends themselves (Emmott, 1989, p.225). In the end of the 1980s when this book was written, the Japanese economy reached to the ripe (or mature) state resulting from the growth process taken for a long time, and it seems that the author has already found the seeds of trend destruction in the long trends. That can be easily guessed from his view that the Japanese had already known richness and that the Japanese economic society having the strong yen and the great capital surplus was changing the nation of savings and diligence into the nation of pleasure-seeking consumers and of investors and speculators. And he had foreseen successfully that the Japanese economy would bring about the bubble and that "the sun also sets" when it burst (Emmott, 1989, p.224).

In fact, the stock prices of the Tokyo Stock Exchange were strengthening the upward trend from around the middle of the 1980s and the average value reached to the unprecedented high value of 38,915 yen at the Nikkei average in December 1989, just after the publication of Mr. Emmott's book. Then, as soon as the New Year began, it turned to clash. Lagging a little behind that movement, a similar change occurred in land prices. The asset bubbles and their following collapses became just a reality. Together with this, the 'Lost decade' began and the long stagnant situation was carried over to this century, becoming so as to be called "Two Lost Decades".

2. 4 Japan's Economic-Social Characteristics and Change of the World Tide

The authors who made analysis of the Japanese economy based on the country's social structure and the nation's traits and considered Japan's future are not limited to the Westerners related to the study of Japan. As one of those Japanese authors, we take up here Michio Morishima who was a world's leading economist and consider his analyses. Mr. Morishima published a book entitled "Why Japan Will Suffer its Fall" in 1999, the last year of the 'Lost Decade'. It was again ten years from the publication of Mr. Emmott's book. In this book, he considers Japan's state around the year 2050, trying to look ahead into the Japanese economy in the future further away than in about 2030 when we keep in mind in this paper. His conclusion in this book cannot be said to be promising as it is known from the title of the book. It is related with the fact that Mr. Morishima's book was published at the end of the 'Lost Decade', ten years from the time when Mr. Emmott's book was written in the background of the mature state at the end of the long-period economic growth of the Japanese economy. Regarding what he indicates as the problems of the Japanese economy in changing international environments, his view has fundamentally many respects in common with what both Mr. Emmott and the predecessor Mr. Vogel pointed to. To begin with, he indicates it a fault to simply extrapolate the past trend in order to forecast the future, as Mr. Emmott pointed out, and discusses that structural and qualitative change of the society influences the future, in the same way that Mr. Emmott and others discussed.

Mr. Morishima says that economy is only a superstructure built on the basis of human beings and that it is a substructure, namely quantity and quality of human beings at the time, that is of key importance for estimation of the future economy, which is just a converse to the conception of Karl Marx. The quantity of Japan's human beings in a period of the future, that is, Japan's quantitative condition of the population is seen to deteriorate steadily as shown in Table 3 (the deteriorating condition for the future is the same for both 2030 and 2050), and it will be difficult to change this estimation.

It is the qualitative condition that can make up for the decrease in population. This brings up a problem of the quality of Japan's education. Regarding this problem, Mr. Morishima is concerned about an influence of Confucianism on the characteristics of Japan's education. In Confucian countries, social classes of the people are determined by their learning result, and the learning periods are equivalent to the periods of social class determination. Historically, the Japanese society has been unconsciously under a

Table 2 Long-term Demographic Change of the Japanese Society

Year	1960	1965	1970	1975	1980	1985	1990	1995
Total Population	93,419	98,275	103,720	111,940	117,060	121,049	123,611	125,570
Number of Births	8,256	8,420	9,051	10,190	8,989	7,723	6,814	6,126
Age 65 and above	5,350	6,181	7,331	8,865	10,647	12,468	14,895	18,261
[65-/Total]	5.7	6.3	7.1	7.9	9.1	10.3	12.0	14.5
[15-64/Total]	64.2	68.1	69.0	67.7	67.3	68.2	69.5	69.4
[65-/15-64]	8.9	9.2	10.2	11.7	13.5	15.1	17.3	20.9
-	2000	2005	2000	2010	2020	2020	20.40	2055
Year	2000	2005	2009	2010	2020	2030	2040	2055
Total Population	126,926	127,768	127,510	127,176	122,735	115,224	105,696	89,930
Number of Births	6,045	5,712	1,087	935	773	695	582	457
Age 65 and above	22,005	25,672	29,005	29,412	35,899	36,670	38,527	36,463
[65-/Total]	17.3	20.1	22.7	23.1	29.2	31.8	36.5	40.5
[15-64/Total]	67.9	65.5	63.9	63.9	60.0	58.5	54.2	51.1
[65-/15-64]	25.5	30.5	35.6	36.2	48.8	54.4	67.2	79.4

Source : National Institute of Population and Social Security Research, "Population Statistics of Japan 2011"; www.ipss.go.jp/

Note: Unit is 1,000 for number of persons. Figures since 2010 are estimates made by the Institute in December 2006.

[65-/Total] and [15-64/Total] are percentage a ratio of population aged 65 and above and that aged 15 to 64 to the total population, respectively. [65-/15-64] is a percentage ratio of population aged 65 and above to that aged 15 to 64.

strong influence of Confucianism, and so, substantially emphasis is laid on acquisition of knowledge in its education in order to get good grades in tests including entrance examination, and Mr. Morishima considers that this is related to the Japanese people's lack of logical consideration as a precondition for correct value judgment and their loss of decision-making ability. Such a problem of the Japanese education was indicated equally by both Mr. Vogel and Mr. Emmott, and this comes to be connected with a problem that Japan is lacking in bright political leadership which is essential to the future of the country.

2. 5 Is There a Possibility of "The Sun Also Rises" after the 'Lost Decade'?

After a series of pessimistic forecasts about Japan's future by the intellectual observers, Bill Emmott published again in 2006 a book concerning the future of the Japanese economy. This new book has the title "The Sun Also Rises – Japan in 15 years from now." The book title has changed from "The Sun Also Sets" published 17 years before to "The Sun Also Rises". This book was published, when the Japanese economy began to show signs of getting out of the prolonged stagnation continuing after the 'Lost Decade,' and in that respect, the book title this time was not felt to be surprising; this is different from the previous book which was published at the time when the economy had not yet worsened clearly.

As a matter of fact, the land prices were felt to be bottoming out and bank lending was changing into an increase. In September 2005, a year before this book was published, the general election of the House of Representatives was taken place and the Liberal Democratic Party lead by Jyun'ichiro Koizumi won an overwhelming victory. Looking at that situation, the author seems to have seen that some bright enduring changes would be possibly brought about in the structure of the Japanese society which had never changed until then. During the economic stagnation extending to as long as 15 years until then, the government was responding to it with a number of political measures, though little by little, and so he might have some expectations that such repeated small changes would bring a great structural change in course of time. It appears that he thought those continuous changes to be 'the seeds of change contained in trends' described in his former book.

Shortly after the publication of this book, it came to appear that the world economy would suffer a simultaneous depression due to the financial crisis occurring in the United States. In 2010 when that situation began to stabilize owing to the cooperative measures of the world including the newly developing countries, Mr. Emmott issued further a booklet with the title "The Changing World—Lagging Japan" (Emmott, 2010).

He indicates that the Japanese economy has not liberalized enough its domestic market in the liberalizing tendency of the world market brought by the globalizing economy, while it relies on export for two-thirds of its growth rate, and that it failed in deregulation of service industries accounting for 70 percent of GDP and in a rise in productivity and efficiency of these industries. And also, he writes that corporate in-house education and loyalty to the organization in the background of cultural traits

peculiar to the Japanese have produced so far a high quality of the labor force of Japanese industries and it was one of the fundamental factors supporting the country's long-term economic growth, but that the increase in part-time workers and irregular employments for the past 10 to 15 years has deteriorated human capital of the Japanese industry.

He sees that, in addition to the government's poor policy measures toward the education, the cause of the failure consists in the fact that Japan could not develop and cultivate new demands crossing over industrial boundaries in the production fields of manufacturing and service industries in the age of new technology (symbolized by ICT technology), and that furthermore Japan could not succeed in cost reduction brought by the spread of work force embodying those new technologies.

2. 6 The Japanese Social and Economic Characteristics as a Fundamental Problem

Concerning such analyses on the present state of the Japanese economy as made by the observers, the Japanese government as the policy authorities intends to recognize its problems. As an example, a document made public by the Ministry of Economy, trade and Industry in February 2010 (METI, 2010), points out the problems such as a decline of the Japanese economic standing (Japan's GDP ratio in the world: from 14.3% in 1990 to 8.9% in 2008), sluggishness of the domestic business activities compared with the growth of foreign direct investments, tendency to overseas transfer of firms' activities, decrease in productive-age population, and need of qualitative preservation of employment to the rapid decrease in the productive-age population. Following that, with regard to the Japanese industries and firms, it takes up various problems as follows; high dependence on manufacturing industries, automobile industry in particular, low profitability compared with foreign enterprises, a large number of firms in an industry as a cause of that problem, 'aging with few children (newly starting firms)' in industries caused by the tendency of a rate of leaving firms keeping to exceed over a rate of starting firms especially after the burst of bubble, high cost of business, low inflow of high quality foreigners into domestic organizations in Japan, and so forth. We can easily make these facts clear by comparing internationally the past statistical figures, and what is important is to consider how to adapt and how to succeed in adapting the Japanese social and economic characteristics leading basically to the present state of the Japanese economy to the international environment rapidly changing at present, and to carry out

what should be done. That basic structure rooted well in Japan in the period of its high growth, but the problem is that the present Japan in the mature state keeps fundamentally that basis still now in spite of the international economic environment changing in structure after Japan's high growth period. However, while the METI's document takes up outward real problems about the industrial structure, it regrettably does not come to recognize the more fundamental problem of social and economic structural characteristics forming the basis of those observed facts.

In the analyses of the Japanese economic society made so far by the intellects at home and abroad, those characteristics of the social and economic structure have been almost commonly recognized, since Mr. Vogel argued under the consideration of the sources of the postwar developing process. A basic character is the group directivity (group reliance principle) that has controlled all the activities of the Japanese society containing firms, politics, education and others. It shows respect for behavior that makes much of consensus rather than interest for unique way of thinking by individuals. A group (Shu'udan, in Japanese) is what is between a society and individuals, and it has a lot in common with the concept that has been called 'Seken (the public) or 'Mura-Shakai' (a village society) among the socialists so far (see, for example, Abe, 1999).

What is called here 'Shu'udan' means a human group to which each of the individuals belongs in his daily life such as a particular private company, public office, school or local society, and within each of these groups, all the members are taken it for granted that they should band together and cooperate for the interest and benefit of their group. In carrying it out effectively, to evaluate each of the members on his individual ability, ideas and conduct would injure a relationship of cooperative and mutual trust of the system and would result in the loss of group interest. Therefore, in treating individuals, the group employs the method relying only on the objective and formal facts which can be uniformly recognized by all of the group members, making possible efforts to avoid substantial evaluation for each of the individuals. Typical examples of the group conduct are the education- and seniority-based wage system, the same-age retirement system under lifetime employment, the government convention securing the same sort of social and economic status for bureaucrats appointed in office in the same year (it goes without saying that this custom has produced a socially harmful effect specifically peculiar to the Japanese bureaucratic system called 'Amakudari-Seido, a system of using bureaucratic influence to give a job to retired officials), and those

organizational practices so peculiar to the Japanese society that it is difficult to find in the other advanced countries have been formed and maintained as if they were natural. Also, concerning types of job requiring official qualifications such as medical doctors and lawyers, the number of successful candidates is limited to be as small as possible in the qualifying examination giving the license, but once they are qualified by passing the formal examination, substantial evaluations about their practical ability and achievements are hardly ever executed in the actual working fields where they should have responsibility to meet the necessity of the society.

Such structural characteristics of the Japanese society brought about various sorts of systems and conventions that have held control of the Japanese economy until the present. They worked well as a central factor of success until the 1980s when the Japanese people caught up with the American people in the living standard, as Mr. Vogel analyzed.

The world economy where Japan is placed at present, however, has remarkably changed into a multi-polar structure including Asian rising nations with increasing globalization of economic activities. In that structural change, the above mentioned structural characteristics of the Japanese economic society which have worked usefully so far cannot hold good any more in the same state as before. In the next section, we try to precisely understand in depth a feature of the Japanese economy covering the period from the high growth toward the two "Lost Decades" based on theoretical analyses focusing on the production structure, and then in another section, to consider what is needed for the sake of restoring the Japanese economy in 20 years from now and how it is possible.

3. Considerations on Production Structure of the Japanese Economy and its Development Process

— From Theoretical and Empirical Analyses

3. 1 Theoretical and Empirical Analysis regarding the 'Lost Decade'

After the latter half of the 1980s, the Japanese economy has experienced the occurrence and burst of the bubble and the 'Lost decade' after that, and then it has been faced with the worldwide simultaneous recession. These days, although it is somewhat stabilized in support by foreign demands from Asian rising countries which continue to develop, it has not got out of the long lasting deflationary state, and its growth rates are

2 to 3 % in real terms which are quite lower than what it used to be in the past. Concerning examinations into the source of such a depressive and sluggish state of the Japanese economy and the effectiveness of the policies taken during that period, a number of academic works of analysis have already been carried out. As a representative work among them, there is a series of research projects named 'Japanese Economy and Economic Policy Research of the Period of the Bubble and Deflation' under a special support of the Economic and Social Research Institute (ESRI) of the Cabinet Office of the government (Cabinet Office, 2009).

We take up here a result of analysis presented in the 'Symposium on Macro-Economic Analysis about Japan's Lost Decade' of the Japan Economic Society (Fukao and Kwon, 2006). In this analysis, they calculate total factor productivity (TFP) of individual firms in manufacturing industry using the firm data from 1994 to 2001 and, on the basis of the results, they investigate the cause of the productivity decline of Japan's manufacturing industry in this period. The analysis is carried out by employing the method of adapting actual firm data to the analytical equation relating a firm's TFP level to its total production Y, individual cost share of production factors S(i), and input of that factor X(i). Then, using sales share \mathcal{L} of each firm belonging to that industry, an industry level TFP is defined to be

and TFP growth rate of the industry during a specified period is calculated, being decomposed into such factors as the growth rates of remaining firms, retiring firms, and newly entering firms.

This calculation gives remarkable results. It shows that, as far as the cause of productivity decline of the Japanese economy is examined in its manufacturing industry, its main reason lay in 'low metabolism' in the Japanese industry, meaning that firms having lower productivity than firms retiring from the industry kept to stay. This presents the fact that the Japanese industry had an insufficient function of redistributing economic resources from lower productive firms to higher productive firms, which means that market functions did not work sufficiently in the Japanese industry.

Before this paper, there were not a few researches about the analysis pursuing the cause of the 'Lost Decade' designating the long sluggish Japanese economy. Among them, there are a research which takes the cause to lie in supply side such as a decline of labor inputs influenced by the aging population and others on the basis of TFP

estimation using Cobb-Douglas production functions (Hayashi and Prescott, 2002) and a research which recognizes insufficiency in effective demand and 'liquidity trap' produced by long maintained low interest rate to be the main reasons for that long recession (Yoshikawa, 2003). What is the most familiar explanation will be a 'Zombie hypothesis'. This hypothesis explains the long sluggishness of the Japanese economy as follows. In the financial aspect of the industries in Japan, there has existed a long tradition of the main bank system which connects a specific group of firms to a specific city bank in relation to their business finances. Under this traditional relation, banks in Japan supply 'evergreen loans' of a low interest rate to their firms even if they have only a small chance of recovering business. This makes it possible for firms in bad shape having little chance of business recovery to survive; they are called 'Zombies' (Caballero et al, 2008). Because those firms remain in the industry without retiring, higher productive firms are obstructed their entry and opportunities of growing. On that account, the industry as a whole is restrained from raising its productivity (Ahearne and Shinada, 2005). This is an explanation on the Zombie hypothesis.

As a matter of fact, firms to which banks gave the bad loans are mostly those belonging to nonmanufacturing industries of real estate, construction and services rather than firms in the manufacturing industry dealt with by the TFP analysis discussed above, all through the period from the occurrence and collapse of the bubble to the 'Lost Decade'. Considering that such nonmanufacturing industries account for 70 percent of all the production activities, it could be regarded that the productivity decline of the Japanese economy as a whole and its prolonged stagnation were the natural consequences.

3. 2 Theoretical and Empirical Analysis regarding the Two 'Lost Decades'

The cause of two "lost decades" does not lie only in a period of those 20 years as shown in the previous section. That was brought by various kinds of policy decision systems of the public and private sectors and by traditional corporate behavior practices. These have been created by the structural characteristics of Japan's postwar society dating back to the middle of the 1950s when Japan made a recovery from the postwar devastations. Thinking this way, it is not enough to analyze the situation theoretically on the basis of statistical materials regarding only the period of the 'lost decade', in order to consider how the Japanese economy should be in 20 to 30 years from now and what should be done at present. Needless to say, it is greatly useful to make causal

relationships strictly clear in the pertinent period by theoretical analyses such as the works referred to in the previous section, but theoretical analyses based on the statistical materials going back to the high growth period should give us some definite thought-provoking ideas for the future outlook.

Therefore, here we deal with a paper carried recently in an academic journal (Sato and Morita, 2009) as a work of theoretical analysis about the basic production structure of the Japanese economy extending over a longer period. This paper makes a theoretical and empirical analysis on the postwar economic growth process of America and Japan by using the statistical materials from the year 1960 to 2004 for macro-economic production functions. It analyzes the long-range process for a period extending to a half century including Japan's high growth period by dividing the whole period into a period I from 1960 to 1989 and a period II from 1990 to 2004. It attracts our special attention to the finding of the changes in the properties of production structures of both the economies.

In Japan, the economy was in high growth during the period I and in long-range depression after the collapse of bubble in asset prices during the period II. In America, too, the economic growth was kept up by innovations supported by the policies of President Kennedy in the 1960s, but in the 1970s having two oil crises, it could not recover sufficiently from the depressive influences. In the period II, however, the American economy entered the era of 'new economy' of recovering the growth by new industries with IT and biotechnology as the leading businesses, and the economic situations of these two countries present a sort of contrast to each other in the latter period. This paper makes a careful analysis about productivity changes during these periods, especially about how a labor input factor under population changes works on a long-range economic growth of a country, using a classical production function consisting of fundamental factors of capital and labor. This problem is precisely the most important viewpoint for Japan whose aging population with few children is discussed to be a factor of great misgivings to its future economy.

The paper, at first, inspects the adaptation of production functions of each of Hicks, Harrod and Solow neutral types to the economy of each of these countries on the basis of the economic statistics in order to define the production function to be used for analysis of each country's economy, and makes it clear that these factor-neutral type growth models cannot determine satisfactorily the productivity of these economies as a whole. Then, introducing efficiencies of production factors of capital and labor, as

 $A\P$, $B\P$ respectively, the authors use a factor-augmenting (biased-type) production function

and from this, they derive the equation for the TFP growth rate.

When we observe the rising rate of efficiency representing the degree of contribution of each productive factor to production activities, we notice that this analysis gives some remarkable results regarding the Japanese economy. At first, the average figure of the annual rising rates of capital efficiency is found to be minus 1.61% for the whole period, being minus 1.63% in the period I and minus 1.36 in the period II. On the contrary, regarding labor input which was reduced in the period II, the efficiency increased at 3.86% annually on average during the whole observation period, showing the rising rate of 5.11% in the period I and that of 1.01% even in the period II including the 'lost decade' and the long economic sluggishness after that. Regarding capital input, the Japanese economy has kept making the minimum necessary capital investment including substituting equipments in this period of long depression as well, but it cannot be said that all those investments have realized efficiency growth that should bring the increase in market demand. That is to say, it may show the existence of over-investment and excessive debt which were accumulated toward the bubble period. As opposed to that, regarding labor input, each firm tried to increase its productivity by substituting capital for labor and furthermore to promote the efficiency of labor input per hour by the efforts like a strict labor management of reduction in unnecessary overtime working and so on, as the economic conditions were getting severe. It could be said that this actual situation is explained by the results of the above empirical analysis based on the theoretical model. Therefore, in order for the Japanese economy to resume the rise of productivity in the whole industry in the future, it is required to make efforts for the capital efficiency to have a positive value and, with regard to labor input, to raise the labor productivity further with service industry as the main object for it, now that the decrease in the working population is unavoidable in the long run.

Concerning Japan's trends as compared with America in particular, the main concern is a declining tendency of the working population brought by the aging population and the decreasing number of children. In this situation, a policy viewpoint indicated by the above results of the theoretical analysis is the necessity of covering up for the decrease of labor force with its productivity growth, that is, the necessity of

continuing to raise effective labor BL by the growth of B compensating for the decrease of L .

3. 3 Suggestions from a Theoretical Analysis on the Long-Range Development Process of a Country's Economy

As seen in the previous section, a long-range development of a country's economy is fundamentally determined by the changes in quantities of capital and labor as the main productive factors and in their quality as working efficiencies of these factors.

I have made a theoretical analysis before about the economic growth processes of Asian newly rising countries (Takashima, 2008). There, I had a purpose of analyzing the economic growth processes of these countries by using a fundamental growth factor of the accumulated knowledge of an economy as the qualitative aspect of its basic production factors of capital and labor in addition to these input quantities. To do that, at first, I see a degree of the economic development in the changes of per-capita (gross) income of the country, which is represented by $y\P$, and set up the following equation based on the Cobb-Douglas type production function:

where $k \P P$ is capital-labor ratio and $A \P P$ represents the degree of knowledge accumulation at that time.

The effective elements of this basic model of economic developments are the fundamental productive properties of capital-labor ratio and accumulated knowledge, and therefore, it must be needed to define by what and how these properties are influenced, in order to investigate the development process of an economy. With regard to the change in capital-labor ratio, its time-varying process is expressed to be

from the equality relation between capital and (gross) savings as a fundamental macro-economic property of a country. Here, $u\P$ is a ratio of national income used for the sake of obtaining new knowledge like investment for education, s is a savings ratio of the whole nation and \neq is a depreciation ratio. Concerning the process of knowledge accumulation on the other hand, it is similarly needed to consider the part getting hackneyed as the human knowledge progresses, about the effective knowledge in the

production process, and so, for the accumulation rate of knowledge effective to actual production, the equation

$$\frac{d A \mathbf{QP}}{d t} \bullet u \mathbf{QP} y \mathbf{QP} \mathbf{X} \mathbf{X} \mathbf{QP}$$

is used by introducing the hackneyed rate \boldsymbol{x} .

Then, we can find the development path of an economy expressed by the per-capita income of the nation y by resolving the simultaneous derivative equations regarding these k and A.

When we depict the time-varying paths made by the combined movements of $k\P\P$ and $A\P\P$ prescribed by the above equation, the movements of a point showing the economic situation at a specific time are found to be largely distinguished into two groups of paths with different directions. One is a group of paths where either or both of these variables is or are in a declining state at present but both of them turn to grow in the course of time by continuing the present policy efforts. The economies in this group come to get on the long-range growth paths. If both of these two variables are in a growing state at present and if they can maintain that situation in the future, the economy can naturally keep a stable growth for a long time. The other is a group of paths in which either or both of the variables stays or stay in a declining state without any policy effort of improvement (or without any good result of such efforts). In this case, without putting a strong policy effort in the economy at some point in time and continuing it after that, that country would make its economy impossible of getting out of the long sluggish or declining state. The later the policy measures are taken, the harder the entry into a growth path becomes.

In the countries which are regarded to be newly rising, their economies show a spectacular growth at present. Even for these economies, a strict examination will be needed into whether they are actually in a long-running growth process or not. That is because it is possible to increase gross domestic products by the increase in massive input of such productive factors as reserved labor force and outdated equipment: such a growth of GDP is not accompanied by any efficiency growth. This may show only a temporal upward shift of the economy within the long-lasting declining area. In this regard, Mr. Krugman formerly expressed his view about Asian economy as follows. The rapid growth of Asian economy was produced mostly by a remarkable mobilization of labor and capital resources and 'the prospect of its future growth is limited rather than

everyone imagines today' (Krugman, 1994). The aspect of productivity growth is admittedly improved especially in China and other rising economies, but careful examinations into it seem to be still needed to know whether these economies have already proceeded truly to the region of long-lasting growth paths expressed by the per-capita income $y\P$ in the above analysis.

3. 4 Warnings to the Japanese Economy from an Analysis of Dynamic Development Paths

The analysis of the previous section gives warnings which cannot be overlooked to the rich countries, too, in a mature state after having succeeded in joining the region of long-lasting growth paths. When we consider the future of the Japanese economy staying in the state of long deflation and sluggishness extending to as long as 20 years with the asset bubble and its collapse after having attained a maturity, the concluding results of this theoretical analysis gives us a weird sign. The Japanese economy accomplished the reconstruction after the war and then brought the per capita GDP of the nation to almost the same level as that of America as the result of the high growth that lasted for a long time. But the highest state was short-lived as the Japanese economy came to enter a long-lasting sluggish state. Table 3 shows its long-range movements by changes in the per-capita real GDP.

Considering this movement in the light of the analytical results by the model in the previous section, the Japanese economy surely stayed in a region of long-range growth paths until the 1980s, but during the two "Lost Decades" after 1990, it seems to be gradually moving toward a long-range declining region in the environmental changes of the world which surround Japan. In the above model, economic movements show the changes in economic results per labor input. Considering that the Japanese economy at present has a decreasing tendency of labor input as a ratio to the population due to the progress of population aging with fewer children, a decreasing tendency of the growth rates of per capita real GDP after the 1990s shown in Table 3 is felt more strongly to indicate, behind that trend of figures, a possibility that the production structure of the Japanese economy may be entering in a long lasting declining region.

If, in the economic analysis described above, the rate of intellectual accumulation has turned to be actually negative in the period II after 1990, that is, during two "lost decades" of the Japanese economy, it means that the labor factor tended to decline not only in its quantity side but also in its quality side, and it can be considered that the

Table 3 Changes in Average Annual Growth Rates of Per Capita Real GDP of the Japanese Economy

Term	1980-1985	1985-1990	1990-1995	1995-2000	2000-2005	2005-2009
	4.28	4.99	1.40	0.96	1.30	0.75

Sources: Cabinet Office, 'System of National Accounts': www/esri.cao.go.jp/jp/sna/toukei.html、
National Institute of Population and Social Security Research, "Population Statistics of Japan 2010". www.ipss.go.jp/syoushika/tohkei/Popular/

Notes: Figures were obtained by calculating 'per capita real GDP(base year: calendar year 2000) using above two materials and getting an average of the change rates (%) of 5 years for each term (an average of 4 years for the last term).

Japanese economy is gradually entering a declining region during this period. If this were true, a great policy effort should be needed to get out of that declining region, as indicated by the above model analysis.

4. Structural Problem of the Japanese Economy — In the Worldwide Changes of Economic Environment

4. 1 Examinations of the Global Political and Economic Transformations in the Near Future

At present, while the Japanese economy stays in a state of the long-lasting economic stagnation, it is now regaining its brightness a little with support by vigorous demand brought by the economic growth of Asian newly rising countries, the neighboring China in particular. However, when we consider whether this situation leads up to Japan's self-supporting development in the near future of around 20 years from now, the economy is not in a situation where its present state can be simply extrapolated. There exist some fundamental structural problems that do not allow a simple extrapolation in Japan's social and economic fields, as already explained by the views of Japanese and foreign observers in section 2. As a precondition for investigation of this problem, it is required for us at first to examine specifically how the world environment surrounding Japan will change in the lapse of time of the near future. Future forecasts of this sort have been made so far by a number of economists and

research institutes. Here, we deal with what was shown in a document of the future forecast, "Global Trends 2025", by the National Intelligence Council of the United States (NIC) (National Intelligence Council, 2008).

The report of this time has a purpose of foreseeing the trends of the world by 2025, and it mentions the following four major trends as the future forecast. Firstly, the international system will become a global multipolar one with the rise of China, India and some others; secondly, with that trend in the background, global wealth and economic power continues to transfer relatively from the West to the East; thirdly, in this trend, the US will find itself having a less dominant power among a number of important actors on the world stage, albeit still the most powerful one; and lastly, world economy will continue to grow as a whole and its population is projected to grow by about 1.2 billion between 2009 and 2025 from 6.8 billion to around 8 billion people, and at the result, there is a high possibility that the scarcity problem of energy, food and water will become important.

The following situation is foreseen in this report. The world stayed in a relatively stabilized circumstance with America as the core country until now after the collapse of the socialist societies. In the future, world politics will become unstable owing to the above global trends from the first trend to the third one indicating a relative decline of position of the advanced countries such as the West and Japan, and a rising position of newly developing countries with China and India as principal ones.

The second major trend will be brought by the decline of Europe and Japan in a global position in contrast with the development of the newly rising countries, and it will be largely caused by the population aging and the decrease in working population. Especially for Japan, the report predicts that a ratio of aged population (65 and above) to working population (15 to 64) will steadily rising (see 'ratio [65-/15-64]' in Table 2) and that the growth rate of GDP will decline closer to zero.

With regard to Japan, the report further points out the next problem in addition to the mention made above. Because of not only its declining and aging population but also an aging industrial base and a more volatile political situation, 'Japan's political, social, and economic systems will likely be restructured' (NIC, 2008, p.33) to address these problems. The report describes specifically necessities of industrial restructuring with increased emphasis on high technology products, value-added production, and information technologies, necessities of taking new immigration policies like a long-term visa option for visiting workers and acceptance of immigrant labor, and the

need of appropriately responding to China's growing military power on the foreign front. Then, it additionally emphasizes in the last part that, in order to effectively respond to and solve these problems, key will be bright and strong leadership that correctly understands the global trends.

In our previous analyses on long-range changing paths of an economy, it was made clear that knowledge accumulation in production structure plays an important role. In this document of thinking the global trends of the future, that importance is finally certified for the Japanese society in particular, by the NIC as well. What worries us the Japanese is a next point; in the world trend of steadily growing demand for higher education, while the United States is considered to have a high possibility of becoming a unique country ranking as the 'hub of education' in the global education market, will Japan be able to prevent a fall of position in this field?

4. 2 Japan's Structural Problems in the Midst of Global Transformation

Now setting about our work on examination into problems which Japan will face in the near future in the transforming global environment, we look over the remarks by Paul Kennedy in his book, "Preparing for the Twenty-First Century" (Kennedy, 1993). This author became famous by publishing a bestseller book, "The Rise and Fall of the Great Powers" (Kennedy, 1987), in which he discussed about the world trends focusing upon the movements of the nation-state. In this later book, he takes up transnational global trends going over individual nation-states like population growth, impact of technology, and environmental damage. He further discusses the possibility that these issues threaten to affect seriously not only to the future of individual countries but also to the whole mankind beyond the national boundary and considers how to take the measures against them. He deals with regional impacts in Part Two of the book, in which one chapter is placed with regard to Japan in particular and twenty-first century problems Japan will have are argued in connection with its social characteristics. The points are as follows.

In the Japanese economy all through the postwar high growth period, its principal basis of creating wealth lay in the strong racial and social coherence of the Japanese; what has strongly impressed Western eyes is Japan's characteristic social norms represented by an emphasis upon group harmony and consensus, generational deference, and the subordination of individual desires to the good of the collectivity. Also, while education is a critical element in Japan as it is in other East Asian countries under the

Confucian influence, Japan lays even greater stress upon learning as a group activity and actual utility rather than encouraging individual excellence, on the basis of its social characteristics above mentioned. The educational contents are mainly composed of cramming knowledge with emphasis on winning an entrance examination to get higher social ranking rather than cultivating individual thinking ability. Therefore, in universities in the highest stage of education system, students have no incentive of study, since they are already situated in the high position of educational ranking system. In addition, the government budget for university education is not enough in comparison with other industrialized countries. Owing to all those causes, Japanese university education is inevitably of poor quality. The author further indicates that Japanese universities have not done well hitherto in creative research in graduate programs. Many authors have already dealt with those natures of the Japanese society and the defects of its higher education as seen in section 2 above. Mr. Kennedy further discusses what results those characteristics will bring to the Japanese society in the world of twenty-first century going with the global changes and currents which develop rapidly.

In the first place, he writes as follows. The Japanese society will have certain changes in many conditions at home and abroad which have contributed to the progress of the Japanese economy since the 1950s and it will not be able to keep up with those changes if it sticks to the traditional nature of behavior. In this situation, the Japanese economy will certainly suffer a downfall. The most important factor of the domestic transformation is an increase in production cost caused by a change of demographic structure, and the Japan Corporation will lose its 'culture of making goods' historically created by following in Western footsteps, in growing competition with Asian newly rising countries. Then, it will come to lose its own specific strength.

Regarding an outlook for Japan in the twenty-first century which is sure to face such structural changes at home and abroad, Mr. Kennedy comes to the next conclusion. While 'guarded optimism' (Kennedy, 1993, p.160) will do for the economic aspect under the condition of keeping its technological superiority, Japan's strategic vulnerability will become the greatest risk factor about unforeseen changes and collapse of the international political system surrounding the country. Considering in this way, we come to notice that what is needed for Japan in the changes of international environments of the twenty-first century is 'enlightened and courageous leadership', and that having such leadership is the only way Japan can contribute to keeping global order and moreover, makes it possible domestically to lead its economy to a new

developing path by adapting it to changes in the international environments. As the author says, however, such political leadership is just what Japan lacks most, and 'this deficiency has not been countered' (Kennedy, 1993, p.161). Concerning this problem, Mr. Kennedy considers that the Japanese social and political system may virtually ensure that such enlightened politicians as can lead the nation will not emerge.

5. In Order to Evade "Galapagos Syndrome" of the Japanese Economy

5.1. Need to Reexamine the Japanese Style 'Machine That Can Go By Itself'

As seen at the beginning of Section 2, it is thought that the fundamental element which led the development of the postwar Japanese economy lay in the social discipline which can be called 'group directivity' or 'group conformity'. This discipline was molded in the Japanese nation through the long history of the country. Being founded on it, the industrial society in Japan has formed the business practices such as seniority system, life-time employment, same-age retirement system, in-house education, in-house information accumulation, and so on. These practices have produced a strong reliability on the organization and a strong sense of belonging to it among its members. These factors exist also in the government administration which has played a leading role in the development of the postwar Japanese economy. That is to say, in each government office, although lawmaking facilities should belong to politics in nature based on the will of the nation, that function has been substantially taken by the related administrative office under its bureaucratic objective, and then, economic and industrial policies have been carried out by the initiative of the bureaucrats in charge under the laws and regulations enacted so as to allow administration at bureaucrats' discretion.

Such structural characteristics of the Japanese economy worked very effectively in the international environment where the postwar world evolved in the lead of the US, because Japan could behave under the American umbrella in every aspect from politics, military affairs, and economics down to culture. During that time, while the world economic environments were certainly hit by great changes such as the Nixon shock, the oil crises occurring twice, and collapse of the socialist economies, it is unquestionable that special procurements by the Allies at the time of the Korean War just after the end of World War II gave the Japanese economy an opportunity of progressing toward the high growth after that. With technology accumulated during that

process and cooperative efforts between the government and the private sector, the Japanese economy was not much obstructed the progress for its long-range growth by a changeover to the floating exchange rate system after the Nixon shock and a sharp rise in energy prices due to the oil crises, and it led up to the 1980s. Then, almost all of the Japanese took pride in the economic strength of their country and did not doubt that they could keep it up.

It was just at that time that "Japan as Number One" by Ezra Vogel was published. In this book, Mr. Vogel remarked as follows. The structural characteristics of the Japanese economy mentioned above are resulted from the social discipline of group directivity, which forms the basis of strength of its economy. While these characteristics have brought economic growth so far, they have risks as well of oppressing rights, individuality, and originality of each person. And then, he posed a question whether the Japanese economy could keep surviving for many years in the future too, maintaining the traditional structure involving these risk factors.

In twenty odd years after Mr. Vogel presented a problem about the future of the Japanese economy by examining its growth factors, the economy produced the bubble and then, fell into the 'lost decade' when the bubble burst. It was Paul Kennedy that analyzed Mr. Vogel's worry more precisely and explained it more specifically. Mr. Kennedy also recognized that the cause of success of the Japanese economy in the long period after the War consisted in the social disciplines peculiar to Japan. They are emphasis on going well with others and getting a consensus, precedence of those older, priority of collective interests, and so forth, which are almost the same norms as Mr. Vogel had indicated. In addition, Mr. Kennedy further mentioned that, although education is a critical element in Japan as a Confucian-influenced society, the Japanese make much of group learning and actual utility as a result of such social norms, and that, in the contents of education, they emphasizes the acquisition of knowledge to get a higher social ranking rather than cultivation of individual thinking ability by the free flow of debate and ideas. All these problems have been pointed out to be fundamental faults of Japanese education in the same manner by scholars such as Mr. Morishima and Mr. Nagatani, who were educated in Japan and spent a long time in the educational world in Europe and America.

Among Mr. Kennedy's considerations as mentioned above, the following is the most important indication when we consider the future of the Japanese economy. The Japanese economy has worked properly so far, receiving benefits from the international

system led by the US, under the 'machine that can go by itself' constructed by various factors consisting of the private corporations and the government offices based on the social nature placing an emphasis upon harmony, consensus and so on. There, it had no need of enlightened drivers who operated the whole system of behavior in always aiming toward a right direction. However, that machine finds itself in a rapidly changing circumstance now, and it is certain that the situation will come to be quite a different one from what it was in the past, as the 21st century goes on. That is to say, in the transforming order of international politics surrounding Japan, what is needed to the present Japan is the enlightened operators who can lead to a right direction the present Japanese economic society losing the effective operating functions; in other words, Japan needs now 'enlightened and courageous leadership'. If having such leadership, Japan can transform its now out-of-date social and economic structure so as to meet the change of international circumstances and can contribute to the establishment of the new international conditions. Japan until now, however, has not created such enlightened political leaders that can take the lead of the nation.

Foreign observers think that it is the enigma of Japanese power structure. Until recently, the function of the 'machine that can go by itself' has enabled Japan to do without such a leader, but in the changing circumstances of the twenty-first century world, the present Japan has to recognize it as an urgent problem to modify various sorts of elements composing the traditional automatic machine and at the same time to have the condition of bringing up leaders with working ability of directing the whole nation to a right direction especially by reforming the traditional Japanese educational system.

On the basis of this problem, there exist the Japanese social characteristics that have been created in the historical and cultural backgrounds, and therefore, in order to reform them, we again return to the need of enlightened and courageous political leadership. Before we treat this ultimate problem in relation to the Japanese social disciplines, we will put together the essential results of the related analyses based on economic theory which were previously given in Section 3, about the problem of the two "lost decades" and that of long-range development paths of an economy. The former problem came to make us clearly recognize the necessity of reforming our traditional economic and social structure.

5.2 Suggestions from Rigorous Facts Given by Theoretical Analysis

With regard to the cause of the long sluggishness of the Japanese economy called

the "Lost Decade" in the 1990s, what has been indicated so far is the increase in bad debts of financial institutions due to the burst of bubble and the accompanied influences to the real economy, along with the delayed assessment to bank assets and other related factors. Concerning the actual situation during that period, a remarkable fact has been made clear by a theoretical model analysis with regard to production activity of the whole Japanese economy.

The financial crisis had a negative effect on the economic activity as a whole, which continuously decreased productivity of the entire production sector. In individual industries, companies increasingly left their industry because of finding difficulty in continuing business. In this case, it is ordinarily considered that companies with lower productivity leave earlier. This is the natural state in free market economy. On the contrary, when companies were grouped in those that were forced to leave by closing business and those that could maintain business during this period of the 'Lost Decade', and when a contribution to productivity of the whole industry was calculated for each of these two company groups, it was found that productivity of the group of leaving companies was higher than that of the group of remaining companies.

In this actual state, it was natural that the productivity of the Japanese economy as a whole declined in this period. The point is that the Japanese industrial society had a structure with less productive companies surviving, in other words, that the Japanese economy stayed in 'low metabolism' which was far from a free competitive state essential for market economy, even after the economy left the period of high growth.

It seems to have one of the causes in the 'main bank system' as a long-lasing practice in the Japanese business society. In this system, an interest community is constituted between a bank and its borrower firms, and the financial relations tend to be maintained between them even when customer firms suffer business difficulties or fall into little chance of improvement. This has been long indicated by foreign observers to be 'ever-green' loan to 'zombie' firms which is a practice peculiar to the Japanese industrial society. This time, the actual situation has happened to be made clear by an academic study. What is important is that such a practice has been created with the social norms of historical and cultural characteristics as a background; namely, these norms are a team-spirit ethos, mutual benefits by preserving trust, group benefit principles and so forth.

The above study has found that the long sluggish economy of the 'Lost Decade' revealed its actual state as a decline in productivity of the industrial world and that a

practice opposed to market economy of pursuing efficiency underlay that situation. Besides, in order to get guidelines for the future, it becomes important to know how much each production factor of labor and capital (equipment) contributes to productivity of the Japanese economy. On the basis of the results of analysis made by using data from the 1960s entering the post-war high growth through the latest year, it is known that the quantity of capital input rapidly increased in the high growth period of the first half observation period until the 1980s in particular. While it is a matter of course for the period of high growth, the capital input maintained a positive growth all through the period including the two "lost decades" of the second half observation period as well. With regard to the productivity, however, capital input shows a negative growth in both the first half and the second half of the period.

As opposed to this, concerning labor input, while the quantity increased in the first half period and it turned into decline in the latter half, its productivity kept rising all through the observation period. In the first half period until the 1980s, it can be easily understood that the high economic growth was realized by input expansion in quantity of both labor and capital. An especially important point that was made clear in the empirical results by this model analysis is the fact that, whilst the quantity of labor input began to decrease after the beginning of 1990s and stayed in the same situation during the long sluggish period, the productivity kept rising throughout the observation period. What is considered its direct cause is that each firm made efforts to raise labor productivity by eliminating unnecessary overtime work and making a thorough labor management, and by taking other measures like a greater use of irregular employment. In addition, another reason to be considered is that intellectual accumulation as human capital has expressed itself in a continuous rise of an effective labor indicator in the Japanese economy as a whole. At this thought, in Japan's society where a decline in young working-age population due to the low birthrate and aging population is rapidly progressing, the trend of intellectual accumulation in its industrial structure comes to be the most important element that will determine the development path of the Japanese economy from now.

Concerning the properties of development path of an economy, the basic nature can be examined by analysis using a theoretical model. The development process derived from this model shows that an economy has different states which can be classified into four aspects varying based on different combinations of two factors of a capital-labor ratio and a degree of knowledge accumulation of the society, and also it is

clearly known from the analysis that long-term paths extending to the future are eventually divided into two groups of going to a developing area and of being destined to a declining area according to the present state and the policy measures actually taken at present. This model analysis supplies an important viewpoint particularly to examine the future trends of the newly rising countries, and in addition, it gives important suggestions to us when we consider the future of economies which have been already in a mature state, as well.

If this model analysis is applied to the present situation of the Japanese economy, as the above mentioned long-term analysis from 1960 through 2004 made clear, capital and labor input increased in volume during its high growth period in the same way as in the present rising countries, but its economy was in no condition to have rising efficiency in the side of capital input. However, the labor productivity was observed to continuously rise. This is understood to show that, in the times from the post-war recovery period through the high growth period, quantitative increase in productive factor inputs and substantial intellectual accumulation in human capital side, an increase in labor productivity in particular, led the Japanese economy to a long-lasting growth path. And what worked effectively in this process was the Japanese social norms of group directivity with an emphasis upon consensus and the structural and behavioral characteristics of industrial and bureaucratic worlds based on these norms.

After the beginning of the 1990s, however, changes in situation of the Japanese economy came to clearly appear in the results of the analysis. A rate of change in capital inputs decreased to one third of the previous rates, but it still kept increasing. Opposed to it, labor inputs changed into decreasing and thus, it makes it impossible for the Japanese economy to maintain its growth through input expansion of productive factors in quantity. On the other hand, with regard to intellectual accumulation, while a decreasing trend of capital efficiency continues, labor efficiency still maintains somewhat a positive rising rate, although it has been reduced to one fifth of those until the 1980s. However, when a deteriorating rate of the accumulated knowledge is taken into consideration, it is doubtful whether such a small rising rate of labor efficiency covers a real increase in knowledge accumulation.

Therefore, if the Japanese economy spends the two "lost decades" with the same structural characteristics as before, its long-range moving path is going to be transferred from the developing region to the declining region. Since the end of the twentieth century, the world trends have greatly changed and the Japanese society too has

undergone irreversible changes like a change in population structure as a typical example. If such a transfer of Japan's moving path is caused by the 'automatic machine' particular to the Japanese society that is kept working without any sufficient reformation despite the great changes in circumstances at home and abroad, it will become definite for the Japanese economy to enter a long declining path. This is the sheer problem that we come to be faced with, lastly.

5.3 For the sake of Survival of the Japanese Economy

When world environments will undergo great changes in the near future, will Japan be able to survive? What should it do right now, in order to survive?

Owing to a rigid economic structure maintained as dissociated from the changes in world environments, lower productive companies survive in the domestic industry, being blessed with the cross-shareholding practice, with the main bank system, and additionally with government protection by industrial policies. Therefore, as its industrial metabolism is not promoted (low-metabolism), the Japanese economy has industries that are 'aging' simultaneously with the aging population. In this situation, companies that try to survive on their own are inclined to abandon their own country's market and to relocate their business activities abroad, mainly in the emerging countries. In this tendency, in industries at home, the rate of opening businesses tends to decline, which is hastening further the 'aging of industry' in Japan.

In the background of these rigid systems and practices, however, there lies the Japanese social characteristics of group directivity with an emphasis on consensus that have been formed historically and the Japanese social norms of giving priority to the good of the collectivity brought by cooperation unified among team members over the appreciation of individual qualities like personality and originality.

Those social characteristics became such practices of business and bureaucratic organizations as the seniority system by educational background, the life-time employment system, and the same-age retirement system, which brought the tendency for these organizations to put more emphasis on in-house education after employment than educational results before employment. In this way, these practices transformed Japan's education to be a means of 'formation of social order' (Paul Kennedy), gave it only a 'function of dividing people into groups' (Nagatani), and made years of education only a 'period of allotting people to (social) classes' (Morishima). This fact leads to a decline in quality of education after the 'allotment' is decided in particular,

namely a decline in quality of Japan's university education. And, in its content, too, the Japanese education as a whole puts the emphasis upon formal knowledge and memory for formation of social order as symbolized by the exclusion of cultural education, and thus, it does not cultivate logical thinking ability prerequisite for a right value judgment. Such educational conditions made the society that is difficult to produce 'enlightened and courageous leadership' able to properly adapt to atypical and unusual situations based on a wide cultural education.

Now that world circumstances around Japan have changed, it becomes clear that its traditional structural characteristics which had properly worked before have come to be unable to meet these changes. Until now, behind various traditional practices, there have lain the basic value norms of the Japanese society brought by a team-spirit ethos putting emphasis on consensus. In the present situation mentioned above, there would be no problem, if such norms could be altered to attach importance to individual quality not only within domestic groups but also in the activities across the national boundary, so as to be suitable for global market economy. However, these are the basic characteristics that all the people composing the present Japanese society unconsciously possess in varying degrees as the value principle to live there and it is hard to change them straight even under 'enlightened and courageous leadership'. Therefore, what can be done is to make steady efforts at altering individually each of the actual practices that comes not to meet the world conditions. By doing so, the value principle of closed group directivity lying in the basis of these unconformable practices is thought to be gradually changed as a historical process so as to meet the market conditions in the world.

Among the traditional practices to be reflected in the present world trends, however, there should be some that ought to be kept effectively. For example, lots of new technological developments looking impossible in other countries have been accomplished in Japan under the collective cooperation within its various organizations. Among these achievements, there exist important technologies like environmental technologies relating to preservation of the global environment in the future. With regard to the cooperative system based on team-spirit ethos for such a specified purpose, it could be reformed to a new system so as to accomplish the purpose of global values to meet needs of the new age, even if the traditional group directivity is abandoned as a social ethical feature against the times.

In the construction of the modern society in the Meiji Restoration in the end of

the nineteenth century and in the reconstruction of the ruined Japanese economy after WW II, it was the cooperative system between the government and the private sector as a traditional structural nature of the Japanese society that lead these historically difficult enterprises of the country to great successes. The present Japan should not renounce the whole system under the criticism from the dogmatic market economy principle but should try to reform it while the advantages of that cooperative nature being maintained. This necessity is strongly realized especially at the historical great disasters that struck the north-eastern Japan this time.

Therefore, in order to alter the Japanese practices, enlightened decisions are needed to select and maintain right ones carefully, and now the situation does not permit any delay in taking measures to improve the practices that are apparently required doing so.

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