A STRATEGY FOR SUBURBAN DEVELOPMENTS
IN THE NATIONAL CAPITAL REGION

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ABSTRACT

This thesis is an attempt to build a strategy to help promote "good" suburban developments in the National Capital Region. Since the beginning of the Meiji Era (1868), Japan succeeded in its modernization by concentrating major functions in Tokyo. Today's economic prosperity of Japan owes much to Tokyo.

On the other hand, too much concentration in Tokyo has caused many problems such as traffic congestion, housing shortages, and high land prices. These problems have made the quality of Tokyo as living places for workers worse.

Suburbanization of offices is necessary to restore job-housing balance, which is the key to solve the problems. However, without public initiative, it is unlikely that the suburbanization will occur.

The National Capital Region Planning System successfully dealt with crises in the past; reconstruction of Tokyo and mitigation of pollution. The National Capital Region Planning System is still valid today as a means to restructure the National Capital Region.

However, the present National Capital Region Planning System is insufficient to promote suburbanization of office because the target of the present National Capital Region Planning System has been factories, not offices.

Amplifying the National Capital Region Planning System is necessary to effectively promote suburban office developments because of the two reasons. In the short run, the amplified National Capital Region Planning System is expected to help private companies and/or private developers move into action for suburban developments by giving them effective incentives. In the long run, the amplified National Capital Region Planning System is expected to prevent "sprawled developments" in the new frontiers by its growth management.

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1. Introduction

This thesis is an attempt to build a strategy to help promote "good" suburban developments in the National Capital Region. Since the beginning of the Meiji Era (1868), Japan succeeded in its modernization by concentrating almost all its functions in Tokyo. Since the end of World War 2 in 1945, population in the National Capital Region -Tokyo and its hinterland [Figure-1]- grew rapidly [Table-1]. The proportion of the population in the National Capital Region also went up as well from 21.1 percent in 1945 to 31.1 percent in 1985 [Table1]. Nowadays, Tokyo has no rival within Japan as a location for commercial activity. Today's economic prosperity of Japan owes much to Tokyo. On the other hand, too much concentration in Tokyo has caused many problems such as traffic congestion, housing shortages, and high land prices. These problems have made the quality of Tokyo as living places worse: it is not uncommon that the commuting time of a business person is over ninety minutes [Figure-2]; it is said that more than forty percent of young people living in rental houses in 23 wards of Tokyo have abandoned the idea of having their own houses because of the high prices [Figure-3]. In other words, job-housing balance [Note-1], which people claim as an undoubted right, is lost. These problems [Note-2] caused an argument about
what to do with the growth management of the National Capital Region in the face of the disparity between the advantage of economic activity and the disadvantage of the living environment. Nowadays this problem is one of the major political issues in Japan.

The National Capital Region Planning System [Note-3], which was originally set up for rebuilding Tokyo destroyed by World War 2, was revised several times afterwards, and is presently planned and coordinated by National Land Agency, is a planning and administrative system of the National Capital Region. In the past, when treating manufacturing industry in the National Capital Region was the major issue, the System worked well, having helped more factories in the center of Tokyo (Commercial and Business Area) to suburbs (Economic Development Area) [Figure-1]. Japanese industrial structure, however, changed substantially between 1970 and 1975: proportion of manufacturing industry workers stopped growing in 1970; proportion of tertiary industry workers exceeded 50 percent in 1975 [Figure-4]. [In the National Capital Region, proportion of tertiary industry workers exceeded 50 percent in 1965, which is 10 years earlier than the time of the national level [Figure-5].] In other words, Japanese entered "post-industrial" society as the United States has already entered it.

Taichi Sakaiya describes the post-industrial society ("the next society") as follows.
"In the next society, while people will prefer consuming abundant time and information, people will show little interest in increasing manufacturing products. People in the next society must use abundant time and information and must be capricious in choosing their preferences, reflecting the change and diversification of view of social value. People in the next society are expected to pay much efforts, without hesitation, to get what are suitable for their view of social value. Here, much amount of the new value or "knowledge value" appears. Then, in industries, who are suppliers, it will be more important to develop "design", "rhythm", and "image" than to increase the amount of products." (Taichi Sakaiya, "Knowledge Value Revolution", 1985)

In the face of a post-industrial society in Japan, the way in which the National Capital Region Planning System is structured and operates must be modified. To understand the nature of that modification and the reasons for it, this thesis will:

1) Look at the historic evolution of planning and development in Tokyo and the role of the National Capital Region Planning System in that process.
2) Explore the current issues in planning in development in Tokyo region and the role that is required of both the public and private sectors in carrying out and agenda for future development.

3) Examine the modifications in the present structure of controls and initiatives in the public sector -particularly the National Capital Region Planning System- that must exist to carry out such an agenda.

This thesis is organized to explore these three issues.

Given (1) changing economic order (post-industrial society), (2) changing housing demands, there is a need for planned growth -second stage suburban developments.

The thesis looks at:

1) The setting within which second stage suburban developments must occur.
2) Why it must occur.
3) What has to happen to enable it to occur, in other words, the problems and opportunities in the region: the institutional -private and public- capacity to respond to the problems.
To get a handle on that, one has to:

1) Understand the history of economic growth in Japan and the particular role of Tokyo in that process.

2) Understand the institutional (legal and organizational) arrangements for land and development.

3) Understand the regional characteristics (six sectors).

4) Understand the limits of and the need for change in the planning and development system (i.e., public and private roles, public hierarchy).

The thesis is organized to explore each of these issues.
2. History of Economic Growth, Increase in Population, and Comprehensive National Development Plan since the End of World War 2 (Four Periods)

From my experience, in a homogeneous society like Japan, a dominant paradigm of the age eventually tends to become a strong "vector" in the nationwide economy and politics. After World War 2, Japan experienced successful economic growth driven by manufacturing industry. However, through the "oil crisis" and the "bubble economy", Japan is presently faced with a new age. In order to envision the post-industrial society in Japan, it is necessary to find latest paradigm by reviewing past paradigms.

A. The first period (1950's - 1973)

It can be said that the "industrial society" which characterized Japanese society (and western countries as well) began with "oil".

"After the World War 2 until 1950's, numerous and large oil fields were discovered in the middle east. The scale of the oil field was so huge compared with the oil fields of the United States, Mexico and
Indonesia, which human being ever used. The cost of the oil discovered in the middle east has been one twentieth of the oil mined from the popular U.S. oil fields." (Taichi Sakaiya, "Knowledge value revolution", 1990)

"The abundance and the low price of oil decreased the cost of auto and airplane fuel and made the "luxury vehicle" popular among ordinary people. Thanks to the situation, land which had been difficult to use was developed. While expanding the urban and industrial areas, the oil enabled more amount of production of agricultural products and natural resources." (ibid.)

"Thanks to the energy easy to use, air condition of the large cities, which had been deteriorated by pollution during the beginning of the 20th century, was improved considerably."(ibid.)

"The benefit of oil was not distributed equally among all the countries; advanced countries, which imported natural resources and agricultural products got more, while developing countries, which exported them got less. By making use of the advantage of low and abundant material acquired by import, the advanced countries made enough use of technologies and labor
forces. Particularly Japan, which has little natural resource in the country, was the most advantageous. It is the universal principle that "when things are too much, one who can purchase from anyone gets the benefit most". (ibid.)

"The fact that the most progressed industries from 1960's until the oil shock were the iron and steel industry, the petrochemical industry and the shipping industry, which depends on much natural resource, shows the situation well." (ibid.)

In the first international exposition in Japan held in 1970, the theme was "human progress and harmony", which was very optimistic for the future. The progress of the aforesaid industries urged the progress of computer technology, which was necessary for designing and managing the production of the aforesaid products (steel, petrochemical products, ship). By the end of 1960's, "first-stage on-line system (deposit and withdrawal are possible at any branch of the same banking company)" was finished among the major banks in Japan.

As for the field of the city/regional/national planning policy, the Comprehensive national Development plan (in 1962) and the New Comprehensive National Development Plan (in 1969) were made respectively by the
delegated agency of the Prime Minister. At that time, overpopulation of large cities (not only Tokyo, though) and depopulation of rural areas were the serious problems. Reflecting the problems, the basic objectives of the Plans were "balanced progress among regions" and "nationwide expansion of the development possibility", and, as the development method, "development plan of the strategic points" and "large-scale projects" were recommended. Specifically, by balanced allocation of manufacturing facilities all over the country, maximization of the productivity was most emphasized from the viewpoint of the increase of GNP. "Factory Limitation Law (in 1959)" and "Factory Reallocation Law (in 1972)" helped realizing the aforesaid objective in that the Laws (a) evict the factories in downtown of large cities and (b) arrange the factory sites as the accepting place in strategic areas. Consequently, in the National Capital Region, many factories were moved from the center of Tokyo to suburbs.

B. The second period (1973 - 1985, - present in part)

The first period was forced to finish by two oil shocks: at the first oil shock in 1973, the price of oil went up from $3 (per barrel) to $11.6, about 3.9 times as high; at the second oil shock (from 1978 to 1980),
the price went up from $12.8 to $26.8, about 2.1 times as high. Taichi Sakaiya describes the change as follows.

"Since the two oil shocks in 1970's, people got the general notion that national resources were not limitless. People no longer believed that national resources, energy, and agricultural products would increase in the future. Many people were scared by the nightmare of absolute scarcity of things in the short run. In addition, people also became afraid of the period of insufficiency of things in the long run." (ibid.)

""The consumption civilization", which sought "more, larger and faster" by consuming much more resources during the three decades after the World War 2, finished around 1980, when the situation was overturned and moved toward diversification and informationization with the notion of "light, thin, short, and small"." (ibid.)

"At first, the majority regarded the change as the temporal fluctuation of the price system. However, afterwards, the demand of natural resources, agricultural products and products in process did not recover in spite of the decrease of their price. Moreover, after the regain of business in 1983, the
demand of the aforesaid things did not increase considerably. Their price of the international market dropped to "the bottom". The tendency was the totally different one from that of the "oil civilization period", and also different from the situation immediately after the oil shock." (ibid.)

"In the manufacturing, transportation and distribution fields, standardized mass production and mass distribution system stopped. On the contrary, multi-kind designs, new technologies, special functions, and special services got the high value. In the field of technology development, the R&D seeking "larger", "more" and "faster", which human being in the 20th century had been best at almost stopped. Rather, diversification, less consumption and informationization became the popular themes." (ibid.)

"The situation means not only the decline of "oil civilization" after the World War 2, which developed by consuming large amount of cheap oil, but also the indication of the end of industrial society which began at the end of the 18th century." (ibid.)

When we change to look at the typical manufacturing industry, Shin Nippon Seitetsu, the largest iron and steel
industry, Soichiro Tahara describes the situation in his book "Industry makes a comeback" as follows.

"This is a strict restructuring: production of rough iron will be decreased from 40,990,000 tons to 28,000,000 tons; workers will be decreased from 82,000 to 65,000" (ibid.)

"In starting the third restructuring on July 1st in 1984, the company changed its bylaw: the company added production and sale of non-iron metals, ceramics, iron manufacture and chemistry plant, steel structure; furthermore, the company added sale of the technology itself and transaction and leasing of real estates." (ibid.)

"The main business of Shin Nippon Seitetsu is "iron", whatever happens. We only add many branches to the truck, in order to meet the change of the situation. Iron is iron, whatever happens." (ibid.)

By the way, as for national land use planning, the Third Comprehensive National Development Plan (in 1977) describes the situation of the period as (a) gradual growth of economy (b) symptoms of nationwide diversification of population and industry (c) appearance of the limitation of national resources and energy. The Plan aims to
"arrange the environment for human habitation, and proposes "settlement concept" as the way. "Rincho" (Extraordinary Administration Investigation Committee, an advisory committee for the Prime Minister comprised of nine members, including both public and private sector members) proposed the shift of the administration policy as follows in the Third Proposal concerning the Reform of Administration System in 1982, reflecting the demand of the arrangement of national infrastructure toward the aged society in the next century and the budget deficit for the arrangement.

"The basic principle should be the shift from instruction, regulation, and protection to arrangement and supplement, based on the notion of "activating private powers"."

Based on the aforesaid situation, several "public-private project" plans were proposed by planners both in public and private sectors. However, that the majority at the period were preoccupied with the "light, thin, short, and small" notion and that there were not adequate funds in private sectors for the development projects made the concept inactive. In short, the notion of public-private partnership came from the motivation of the public side, not from the private side. In addition, private proponents were mainly steel companies
and construction companies, which intentionally advocated the projects to create their business.

C. The third period (1985-1990)

The inactive "public-private project plans" regained their powers by an unforeseen event. The event was the Plaza Agreement on September in 1985. In the Agreement, finance ministers of five countries announced the cooperative intervention in money market in order to adjust the excessive high price of dollars. By the measure, the dollar-yen exchange rate was shifted from $1 as 240 yen (1 yen as $0.00417) to $1 as 150 yen (1 yen as $0.0067) on February in 1987. Despite the change of the rate, the trade imbalance between the United States and Japan did not improve. When there was the apprehension of adoption of the "Retaliation plans on Japan", the national government in Japan proposed the following six measures to stimulate or expand domestic demands.

(1) Introduction of private power to public business/projects
(2) Deregulation
(3) Reduction of working time
(4) Utilize financial policy
(5) Use of national land
(6) Tax reforms

As the consequence, except (3), the aforesaid five measures became powerful incentives to promote "public-private project" development and private project development (mainly offices) as well. In spite of the decrease of the corporations' willingness to invest in new machines and equipments [because of the consequence of the oil shock], private corporations still had a large amount of cash, some of which corporations raised by "equity financing" in stock markets, reflecting the financial deregulation and the "strong yen". On the other hand, banks and insurance companies were not able to lend money to manufacturing companies. Rather, the "excess" amount of money went mainly to stock market and real estates in Japan, although some of the money were used for the purchase of Treasury Bond and real estates in the United States. Banks and other financial companies recommended to invest in real estates to both corporations and individuals. It is well known that the aforesaid situation caused the "crazy land price" in Tokyo. It is the very same time that Tokyo Bay Waterfront Sub-City Center Plan, Minato Mirai Plan, and Makuhari new City Plan [Figure-1] regained their power. In their projects, office use was dominant in order to maximize the rate of return. As for the office demand, it was strong because of the diversification of manufacturing industries,
expansion of tertiary industries, and participation of
government and public sectors) were bullish, reflecting the strong demand
of office space and the shortage of offices in the center
of Tokyo, and they began the first stage suburban
developments in order to get capital gains.

As for urban policy, the Fourth National Capital
Region Planning System (in 1988) and the Fourth
Comprehensive National Development Plan (in 1987) proposed
Business-Core cities [Note-4] to solve the too much
concentration of Tokyo. The proposition means, in a sense,
that the Plans afterwards borrowed the fact that there
already began some public-private projects such as Minato
Mirai Plan and Makuhari New City Plan.

D. The fourth period (1990 – present)

The third period did not last long. On October 1st
of 1990, the Nikkei Average Stock Price went down below
20,000 yen, nearly a half of the price of the beginning of the year. The "high stock price" and "high land price"
structure, which was the typical feature of the third period, collapsed. The Bush-Miyazawa talks on January
of 1992 made manufacturing companies (and, maybe, many other companies in Japan as well) realize that even direct investment was no longer the solution. Tokyo Bay
Waterfront Sub-City Center Plan is presently exposed to criticism.

"Tokyo Metropolitan Government began to revise part of the Tokyo Bay Waterfront Sub-City Center Plan. Governor Suzuki clarified that, in a congress of 13th, he would increase the number of public housing. The reason for the increase of public housing is that the rent of the housing which the coming corporations will own is too expensive for low-income and middle-income people. In the congress there was a criticism that whom the housing is for." (Nikkei Newspaper, February 14th, 1991)

"According to the Plan, the total number of the housing units is 20,000, of which 65 percent or 13,000 units are public housing. The Government intends to increase the proportion of public housing while keeping the total number of the housing units the same." (ibid.)

In short, Japanese, both public and private sides, presently take a calm attitude, looking for the new social and urban structure in the post-industrialization. This attitude means to go back to the series of the process since 1973, when the post-industrialization began. In the process there was the temporal "boom" of real estate,
but it did not last long. In other words, the fourth period is the revival of the second period. However, there is a difference between the two period in that the fourth period contains the results of the third period, such as the city form and the sense of value of social structure. In retrospect, the basic objective of the Third Comprehensive National Development Plan (in 1977) was "to arrange the environment for human habitation". If I presently made the fourth revision of the Plan, it would be "(in the National Capital Region), to arrange the environment which has a balance of office functions (or employment) and human habitation".

In this chapter, I will show the necessity and possibility of new suburban developments in a "frontier" from the viewpoint of land-related issues, since I think that Japan has some special characteristics of land and issues of land caused by the characteristics have complicated aspects. The main characteristics of land are as follows.

a) **Japan has a large number of population in the narrow land.**

Japan has a 377,801 km² area of land (in 1985), where 122,264,000 people (in 1987) live. The area per capita is 3,000 m² (about 0.75 acre) [9.3 acre in the United States (in 1984)]. One may argue that the number (3,000 m² per capita) is not small compared with those of European countries such as England, for example. However, as for the "habitable area" (which means exclusion of mountain area where it is substantially impossible to live), it is 600 m² per capita, one fifth of "nominal" number. The habitable area per capita in Japan is **one fifth of that of the England**. If I describe in more detail, habitable area per capita except agricultural land is 150 m² (1,670 square feet), and residential area per capita is 42 m².
b) **After World War 2, Japan changed from a developing country to an advanced country.**

As I mentioned in the previous paper, Japan experienced rapid economic growth after World War 2. In the process, there was the strong power which maximize the GNP in the narrow land. As the result, overpopulation of Tokyo became apparent. Consequently, presently in Tokyo, there still remain several "relics" not only in the city form but also in land use, and property laws that are out-of-date and inadequate in promoting the urban policy in the fourth period.

c) One dilemma in treating the "relics" is that if one "settle" a problem caused by the "relics", other problems may appear as "side effects". Japanese land policy is something like money policy of the Central Bank. For example, it is easy to propose the restriction of office space in the center of Tokyo. However, it may also decrease economic vitality of Japan in the future [Note-5]. We know the similar experiment in England.

Current land policy, land law, and land tax system in Japan are based on the ones established after World War 2 or before that. On the other hand, Japan proposed several plans to stimulate domestic demand and open markets
to foreign countries (especially the United States) at the Structural Impediments Initiative (in 1989 and 1990).

In the plans, there are several land issues which I think will influence future urban planning and new suburbanization. In addition, how to evaluate the "appreciated land price" problem will also influence future urban planning and new suburbanization. Therefore, it is necessary to confirm the latest tendency and the historical backgrounds of the land issues.

A. Treatment of farmland in urban planning

After World War 2, Japan executed several reforms for democratization by the order of GHQ. Farmland Reform was one of the important reforms. The Farmland Reform was executed in order to increase the food (mainly rice) production and promote democracy in rural areas. The Reform changed the structure of farmland ownership before World War 2 [that is to say, many peasants and a small number of farmland owners] fundamentally. Many farmland owners with narrow farmland appeared nationwide. In order to secure the ownership of the "narrow" farmland and to prevent a large landowner system, Farmland Law was established in 1952 (it was subsequently revised in 1962, 1970 and 1980). In the Law there was the restriction on transfer of the right of farmland, transfer of the
use of farmland from agricultural use to other ones (including transfer from farmland to building land), and owning tenant farmland. If one intends to transfer the right or the use of farmland, one must get the permission of the prefectural governor. If one is a stock company and intends to continue agriculture, one cannot get the permission (but presently, national government is discussing the change). In case of buying and selling for the purpose of transferring the use of farmland (to building land), permission of the prefectural governor is necessary. [However, if the farmland is in Urban Area, it is enough to report to the agricultural committee of the municipality.] In short, all the farmland was supervised by Ministry of Agriculture and Forestry under the Farmland Law and out of the reach of City Planning Code and Ministry of Construction [Table-2]. As for this issue, Tadao Kobayashi, chairman of Japan Real Estate Research Institute, describes the story as follows.

"But both Ministry of Agriculture and Forestry and Ministry of Construction got a lesson through the farmland dispute<*>. The problem comes from the lack of the system which would distinguish the farmland to be kept in the future and the farmland allowable as building land in the future." (Tadao Kobayashi, "Evolution of Land Issues and Land Policies after World War 2", the Japanese Journal of Real

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As for tax system, in principle, property tax and inheritance tax of farmland in Urban Area is the same as those of building land. However, if the owner of the farmland report to the municipality that he/she continues agriculture for the next ten years, then the property tax as building land will be deferred (that is, the land will be taxed as farmland, which means very low tax rate). As for inheritance tax, the situation is similar if the heir/heiress report that he/she continues agriculture for the next twenty years. At the Structural Impediments Initiative, the United States pointed out that the beneficial treatment of farmland is one of the reasons for high land price and shortage of building land [Note-6].
B. Transition concerning the treatment of condemnation of land

It is well known that, after World War 2, Japan has had the principle to protect private property right under the new constitution. Condemnation of private land for public purpose is interpreted quite narrowly (although the interpretation has become wider to some extent since the establishment of Expropriation Law in 1951). It was easy to identify that the condemnation for the purpose of expressway and railroad is for public purpose, but as for the condemnation for the purpose of public housing, there had been many arguments. The reason I think is that the basic notion that the national power should be limited for the democracy was succeeded to the Expropriation Law in 1951. Consequently, condemnation of private land by national power was limited. However, laws change when social or economic situation changes. Increase in the population of Tokyo during the second period necessitated a large number of housing. The situation urged the expansion of the interpretation of public purpose. The notion that the condemnation of land for public (quasi-public and, in part, private) housing is true of public purpose has become popular. Local governments and Housing and Urban Development Corporation got the power to exercise the condemnation by New Residential Area Development System (in 1966) [Table-2].
Before the amendment of the System in 1986, only housing and public facilities were allowed. Since the revision in 1986, R&Ds and offices have been allowed. In short, suburbanization of R&Ds and offices have got, to some extent, legal support.

C. Taxation on building land

It is well known that one of the reasons for the appreciation of land price, especially in the third period, is the lack of liquidity of land. It is also argued that poor taxation system on building land is responsible for the illiquidity: high rate of capital gains tax and low rate of property tax (compared with those of the United States); the former decreases the willingness to sell land while the latter helps keep holding land because of the low holding cost. In addition, as for the former, if the holding period is less than two years, additional capital gains tax will be levied "something like sanction". From the viewpoint of increasing the liquidity, one might propose the reduction of capital gains tax and increase of property tax. However, things are not so easy. The reasons are as follows.

1) Average income per capita had been low after World War 2. In addition, a landowner with other's leasehold
cannot get satisfactory amount of rent because of the Tenancy Law. Therefore, from the viewpoint of tax bearing capacity, low property tax and high capital gains tax is reasonable.

2) If the classical demand-supply market theory could be applied, the aforesaid proposition would be correct. However, as I mentioned at the beginning of this chapter, Japanese land is quite scarce, compared with the population and the industrial power. Taking rapid economic growth and increase in land utility [as for the land utility, I will mention at 3)] into consideration, land price necessarily increase in Japan. In parallel with the rapid economic growth, many real estate brokers made a lot of money by making use of "land rolling". One may think that if the selling price is too high, there will be no buyer. This is not always true in Japan, because it is the popular notion that "income capitalization approach" cannot be applied. In addition, different from the United States, downtown in Japan is safe even at night, and one does not have to worry about the decrease of economic potential in downtown even if the suburbs are developed. Therefore, one who purchased land does not have to recover the investment cost for a short time. Rather it may be better to sell land when the price seems to have finished rapid increase (to make money). High capital gains tax means the inclusion of sanction of "land rolling".
3) Japanese people and politicians have one unconscious notion; most effective use of land nationwide. Therefore, the proposition may be to "construct railroad and highway networks all over the country". Then the question is how you can collect enough funds for the investment. I think capital gains tax (and inheritance tax) are the source for the investment. The reason is that those gains (capital gains and inheritance property) are "gains without labor", so levying these taxes is the easiest among all kinds of taxes. It is, of course, that issuing construction bonds can be considered. However, the cost will eventually be paid by all the people, not by "rich people". Therefore, it is not easy to argue that the former is worse than the latter; that is, one can regard "high capital gains tax" as a kind of "charge for development benefit" (part of "development benefit" should be returned to the investor).

D. Appreciation of land price

It is true that, in the third period, Japanese land price (especially in Tokyo) increased very rapidly and became "very high". It is often said that the "extraordinarily" high land price is the "problem". First, it is necessary to study whether Japanese land price is
"extraordinarily" high. One example of "extraordinarily" high price is that the ratio of the land price to office rent in Tokyo is five times as high as the ratio in London (that is, if the office rent is the same both in Tokyo and London, the land price in Tokyo is five times as high as the land price in London). However, if the market interest rate is the same in both countries and economic growth rate is 5 percent in Japan and 0 percent in London (the situation seems to be likely), the appreciated land price is not necessarily "extraordinarily" from the long-term viewpoint. It is no wonder that, in the third period, people thought (or expected) that considerably high economic growth rate would continue for thirty years in Japan. Taking the scarcity of Japanese land into consideration (again, habitable area in Japan is one fifth of the area in England), the appreciation was not necessarily "extraordinary".

As for the argument whether appreciated land price in Tokyo is "bad" or not, I will concentrate my argument on the possibility that workers can own their housing (or building land for housing) in order to avoid vagueness of the argument. According to Michihiko Hanagata, a senior director of Urban Development Association, worker's situation to get housing had became better from 1972 to 1984. He pays attention to the proportion of an apartment house price to worker's annual income; 5.06 in 1972, 4.85 in 1977, 4.91 in 1983, and 4.63 in 1984. His research
ended in 1984, so there is no data in the third period. Actually, the number is presently between 8 and 10. In short, the disparity between worker's income and housing price became apparent in the third period [Note-1]. In this sense, the appreciation of land price in the third period is "bad".

By the way, as it is interesting to see the transition of the land price situation in Tokyo since the end of World War 2, I would like to extract part of the paper (especially from the late 1950's to 1960's) written by Tadao Kobayashi.

"It is popular today politically and socially that "land problem" means "land price problem" and that "land policy" means "land price measures", especially "building land price problem" in relation to housing problem. But at the end of World War 2, the situation was quite different." (ibid.)

"During World War 2, city people moved to rural area to prevent the danger. Even after World War 2, many of the refugees did not return to Tokyo. Therefore, there was much "extra" land." (ibid.)

"What were insufficient were lumber and nails. As for land, there were many ex-military sites, and many private sites were left without housing (the
owners were not identified). Because of the situation, it seems that land price in cities was not the problem." (ibid.)

"It was farmland, not building land in cities, that mattered. Farmland Reform was one of the important policies of GHQ, and was strongly proceeded. On the other hand, GHQ did not pay any attention at all to land and housing problem in cities." (ibid.)

"During the rapid economic growth period, change of land use was the result of the "price mechanism" which pursued the most efficient situation. The most efficient national land use and allocation of "land resource" were attained by the "price mechanism". It was the natural result that the rate of increase of land price exactly corresponded to the rate of increase of GNP. It is often said that the increase of Japanese land price is extraordinary. I usually doubt the extraordinariness of increase of Japanese land price. It is indeed true that capital gain of landowners caused by increase of land price, without any effort of landowners, is unfair. But the unfairness comes from the poor policy of reallocation of the gain to the society. It is not correct to criticize increase of land price because we place landholding right under the
laissez-faire system. Under the laissez-faire system, it is natural that the land price increases when supply of land does not catch up with demand. As we make the second largest productivity on scarce habitable area, it is natural that the profit is reflected on land price. I think the present land price reflect real economic value. Then the question is what the land policy is for. We have to go back to the basic question." (ibid.)

In short, before the third period, Mr. Kobayashi argues that the land price mechanism reflected economic growth and the mechanism was reasonable. He also indicates that the increase of land price itself is neither good nor bad.

E. Tenancy Law

Present Tenancy Law was originally established in 1921 (in 1931, part of the Law was revised). At that time, many people had leased land and built their own houses to live and do business. Therefore, the main purpose of the Law was to protect and stabilize the leasehold. Under the lease contract of the Law, even if the term of the lease (concrete buildings: 30 years, wooden buildings: 20 years) expired, the lease contract
can always be renewed as long as the leaseholder wants to do so. We can say that as GHQ did not touch the land problem in cities, the custom in pre-war period remained. Reflecting the rapid economic growth and increase of land price, the value of leasehold increased. On the other hand, the landowner was not able to increase the rent proportionally because of the Tenancy Law, which is advantageous to the leaseholder. Therefore, from the standpoint of the landowner, he/she complained that he/she not only was unable to redeem the land once he/she leased but also had to endure unreasonably low rent. Consequently, presently, it is hard to find new lease contract. Therefore, this is one of the important reasons that hinder supply of building land.

In 1991, part of the Tenancy Law was revised. According to the revised Law, new leasehold contract for business use except rental housing will automatically expire and the landowner regain fee simple right at the termination of the lease (from 10 to 20 years). [However, in case of rental housing, the term is from 40 to 50 years.] The main purpose of the revision is to adjust and clarify the relationship between the landowner and the leaseholder. The revision satisfies the objective to some extent. From the viewpoint of building land supply in city areas, it is quite inadequate as many economists argue. The main reason is that the revised Law is applied only to new contracts, not existing contract. In Japanese
cities, including Tokyo, there are still many single-story housing made of wood and two-story housing whose first floor is used for retail in economically high potential areas, and many of such buildings were built on leased land. Therefore, even if both a developer and a landowner are willing to redevelop the site, it is very difficult to expel the leaseholder if he/she does not agree to remove. On the other hand, in case of new suburban developments, we can expect the application of the revised Law, given the supply of building land which used to be farmland in Urban Area.
4. History of The National Capital Region Planning System

A. Past Success

The National Capital Region Planning System [Note-1] succeeded in controlling the National Capital Region in the past as a guideline for national government agencies, prefectures, and developers in the following sense.

1) Conquering two crisis of the past

After World War 2, there were two major crisis to be conquered in the National Capital Region; reconstruction of the national capital which was mostly destroyed by World War 2, and mitigation of pollution due to the rapid concentration of population and industry in Tokyo.

"While Tokyo metropolitan government made the best effort to reconstruct the city which had been mostly destroyed by World War 2, strong plans and financial measures by a national government were necessary in addition to the effort of Tokyo metropolis, which is only a local government." (National Land Agency, "Arrangement of the Large Metropolitan Areas", 1988)

"In proportion to an increase in population and concentration of industries due to the rapid economic
growth, it became apparent that arranging important facilities in 23 wards of Tokyo was insufficient and that construction of new residential [Note-7] and industrial towns in the suburbs was also necessary" (ibid.)

2) Planning and arrangement beyond the scope of prefecture and municipalities

Usually, as Table-2 shows, arrangement of urban facilities, urban development projects as well as land use control (by eight zonings) are planned by a prefecture. However, in order to mitigate the pollution due to the overconcentration of Tokyo, inter-prefectural plan was necessary.

"The National Capital Region Arrangement Law (note: the Law gives the legal authorization to the National Capital Region Planning System) intended to promote construction of new urban structures in the metropolitan level, which encompassed not only Tokyo Metropolis but also abutting prefectures that would have unified functions with Tokyo Metropolis." (ibid.)

3) Adjustment of policies of several national government agencies

While connection among prefectures and metropolis is "horizontal", connection among Ministries is "vertical".
there are twelve Ministries in Japan. Some of the Ministries have important roles for the National Capital Region Planning System. [Table-3]

"In order to rearrange and promote the projects based on the National Capital Region Planning System, the National Capital Region Arrangement Committee (note: in 1974, when the National Land Agency was founded, the task of the Committee was succeeded to one of the departments of the National Land Agency), had the power to adjust the projects which otherwise would be exposed to the power of some related Ministries." (ibid.)

4) Arrangement of major roads and railways and setting up new town projects (both residential and industrial)

Usually, as Table-2 shows, arrangement of urban facilities and urban development projects are planned by a prefecture. However, in order to mitigate the pollution due to the overconcentration of Tokyo, inter-prefectural plan was necessary.

"The Arrangement Plan consisted of two plans; a plan fundamental for the arrangement of important infrastructures such as large building sites, and major roads and railways, which would connect between
urbanized areas and suburban areas and between suburban areas" (ibid.)

5) Relocation of facilities

By connecting two measures [i.e., restriction of new construction of factories in the center of Tokyo (Commercial and Business Area; Figure-1) and promotion of construction of factories in new industrial towns (Economic Development Area; Figure-1), the National capital Region Planning System helped relocate factories [Note-3, 8].

"In 1959, the Law Restricting factories in Commercial and Business Are in the National Capital Region was enacted. By the enactment, the two concepts, restriction of new construction and expansion of factories in Commercial and Business Area and acceptance of the factories which "spilled" from Commercial and Business Area, was realized." (ibid.)

B. Insufficiency to Promote Suburbanization of Offices

The latest National Capital Region Planning System (established in 1986) [Note-4] refers to the importance of the promotion of suburbanization of offices, and
proposes "Business-Core City" [Figure-1, 4].
The Business-Core cities are the ones whose population
is around or over one million and whose distance from
the center of Tokyo is around 30 km. The examples are
Chiba City (including Makuhari Project), Yokohama City
(including Minato Mirai Project), and Omiya-Urawa Cities
(including Saitama Shintoshin Project). The proposition
of Business-Core City, which I call "first-stage suburban
development", is inadequate, however. The Business-Core
City concept lacks sufficient recognition of the present
situation; transition from the industrial society to the
postindustrial society. The lack of recognition of the
present situation, post-industrial society, ends in the
poor proposal (that is to say, "Business-Core City"
concept) which does not seem to lead to a substantial
solution; commuting time of workers does not become
shorter, and proportion of white-collar workers capable
to own housing does not increase [I will argue the issue
in detail at the next chapter]. Therefore, another
proposition, which I call "second stage suburban
development" is expected for the solution.
5. Regional Characteristics: Six Sectors

To restore the job-housing balance, it is necessary to shorten the distance between offices and housing. In this case, the "distance" does not mean "geographical distance", but "time distance". In the Tokyo Metropolitan Area [population: 30.3 million in 1985], there are four prefectures [Tokyo, Kanagawa, Saitama, and Chiba], in which there are 302 municipalities (in 1985). There are several railways, such as Japan Railways and several private-owned railways, that expand from the central area of Tokyo to suburbs in every direction and determine time distance. However, in the Tokyo Metropolitan Area, all the suburbs has not necessarily been developed equally. Southwestern part of the Tokyo Metropolitan Area has been developed earlier than any other part because of a historical condition; Tokaido, which, in Edo Era (before 1868), used to be the most important road that connects Tokyo and Osaka, the second largest city in Japan, had influenced much in the early development. In the southeastern part of the Tokyo Metropolitan Area, there is Tokyo Bay, which had been a barrier until recently, when waterfront development became popular. From the two factors (radial railway systems which decide time distance and difference in directions caused by geographical and historical conditions), it is not Multiple
Nuclei Theory which is popular in metropolitan areas in the United States, but Sector Theory that is suitable for the Tokyo Metropolitan Area.

The objective of this chapter is (1) to clarify the possibilities of supply of offices and housing in each sector [there are six sectors obtained by dividing the Tokyo Metropolitan Area based on the present land use and future land use possibilities], (2) to analyze whether or not offices and housing that will be supplied by developments in each sector will contribute to job-housing balance, and (3) to show the necessity of second stage suburban developments in order to restore job-housing balance.

Figure-6 shows the classification of the Tokyo Metropolitan Area into six sectors. [Figure-7 shows the locational relationship between sectors and prefectures.] Table-4 shows the outline of the possible supply of offices and housing in each sector. Sector 1, Sector 2, Sector 3, and Sector 4 belong to Urbanized Area, which is almost identical with the 23 wards of Tokyo. The Urbanized Area is almost situated in the area which is within 20 km (12.5 miles) from the center of Tokyo [one exception exists; Yokohama-Kawasaki area, which abut on the 23 wards of Tokyo at the southern part, and belongs to Sector 2].

Present characteristics of land use and future possibilities of six sectors are as follows.
A. Sector 1

Sector 1 occupies the central part of Tokyo. There are many high-rise office places such as Marunouchi (headquarters of large companies), Kasumigaseki/Nagatacho (government and public offices), and Kabuto-cho (security companies). In addition, there is a famous shopping mall called Ginza. In waterfront areas, large projects are under way both on former sites of factories and on infilled sites. Other than the waterfront areas, several redevelopment projects (office projects, not housing projects) are under way on the middle-scale (about 0.5 acre) sites, which were obtained by "connecting" the abutting small sites. The characteristics of this Sector are as follows.

1) Office development

This is the most "expensive" area in Japan. The land prices in commercial areas are from $14,000/sqft to $22,000/sqft. As the land price (and the Japan's potential economic power) is reflected in the office rent, the rent can be $200/sqft. The offices are high-rise in order to use the expensive land efficiently. As the amount of supply is much less than the demand, companies have difficulties in finding new office spaces. Therefore, it is obvious that new companies have difficulties in
locating their headquarters offices in this sector. Even the companies presently locating their headquarters in this sector have to consider looking for suburban offices (in Sector 2 or Sector 5) when they need additional office spaces as their strategies. There are some companies that suburbanized all the headquarters functions (e.g., Jasuko, which is the fourth largest GMS retail company in Japan).

2) Tokyo Bay Waterfront Sub-City Center Development

[Note-9]

With the aforesaid strong office demand for a background, Tokyo Metropolitan Government began "real estate business" in the third period. This is Tokyo Bay Waterfront Sub-City Center Development. If the project realized exactly the same as the original plan, the project would have a considerable impact in office market of Tokyo. In the fourth period, the original plan is exposed to criticism of both the parliament and citizens because of the plan's inclination to economic profit. The inclination can no longer be accepted in the new paradigm. Takashi Ohnishi, an associate professor of the University of Tokyo mentions the situation as follows.

"Tokyo Bay Waterfront Sub-City Center Plan is presently exposed to criticism. The criticism is based on various viewpoints. The important thing
from the viewpoint of metropolitan-level planning is that when the large "Business City" plan to absorb 110,000 workers is completed, the single-pole structure of Tokyo will be more intensified, causing more traffic congestion, housing shortage and pollution. In other words, there is the big question that why the further concentration has to be made by the public sector's initiative in the situation that the center of Tokyo is already overconcentrated."

(Takashi Ohnishi, "Planning for the Location of Business Facilities", City Planning Review, 1991)

3) Housing

One can think of housing supply in this sector in order to correct job-housing imbalance caused by the increase of office development. In fact, in some wards (Chiyoda, Minato wards) there is the linkage system that require certain amount of housing supply for office projects. The situation is similar in Tokyo Bay Waterfront Sub-City Center Plan. However, there are two major problems in the linkage system.

a) The amount of housing supply is small compared to the increase of employment

In the linkage system, developers must construct housing the floor area of which is from 5 percent to 10 percent of office floor area. However, it is obvious
that the housing is inadequate from the viewpoint of job-housing balance. Some wards and Ministry of Construction are studying several ways such as "bonus" FAR of the development and grants, which proved to be inadequate from the private developers' cost-benefit standpoint, for affordable housing, which do not seem to succeed. The reason is that the developers are not willing to increase housing supply. The reason is that housing is not so profitable as offices. If the housing is affordable, the gap increases.

b) **The linkage system presently enforced has a different objective**

The objective is to mitigate the decrease of the population of the ward by office development (former residential sites are developed for offices), not to attain job-housing balance for new office developments. As the consequence, residents of the former sites or residents of the ward has the priority to occupy the housing as the policy. The situation discourages the developer from supplying housing. If the housing is excused from being affordable, the developer set extremely high price to the housing, which only "rich people" can purchase. In short, housing constructed by linkage system does not seem to work well for white-collar workers, who are the majority of the population of the Tokyo Metropolitan Area.
If the system by which public sector provides white-collar workers much housing were established, it would be a strong measure for restoring job-housing balance. However, the realization seems to be difficult because of the following reasons.

a) Except the land for Tokyo Bay Waterfront Sub-City Center Plan and the land owned by JNR Settlement Corporation, almost all the sites are owned by private entities. It is almost impossible for public sectors to condemn private sites for housing construction by redevelopment.

b) If housing are supplied by Tokyo Bay Waterfront Sub-City Center Project or redevelopment of JNR Settlement Corporation's sites, it is possible to construct a program by which white-collar workers (who are moderate income) can occupy? White-collar workers are not low income people.

In short, in the new paradigm (the fourth period), office projects which ignore various "negative impacts" have difficulty in being acceptable socially and politically, which is pointed out by Tatashi Ohnishi. In addition, present linkage-system does not work well from the viewpoint of job-housing balance.
B. Sector 2

Sector 2 is located outside of Sector 1, and had been called "suburbs". There are sub-city centers such as Shinjuku, Shibuya, and Ikebukuro, which have terminals of private-owned railroad that extend to suburbs and have important roles for office and commercial places. [I included Yokohama and Kawasaki in this sector although the two are not in 23 wards of Tokyo.] Compared with Sector 1, there are many residential areas which are composed of single-story or two-story housing. Similar to Sector 1, rent of the offices whose location is good (such as sub-city center area) is high. Offices are usually high-rise and sometimes skyscrapers. In this sector, there are several former sites of factories, where developments (mainly offices) are going forward. However, these sites are not necessarily suitable for office development: automobile accessibility is not good due to the poor road network around the sites; because, around the sites, there are residential areas, whose road network is generally characterized as "poor" in Tokyo.

In contrast with the situation that office development sites are limited, condominium developments by private developers are going well. The explanation is that, in this sector, sites not suitable for office development are suitable for condominium development. However, the condominiums are built for "rich people" or for use of
tax saving. Therefore, condominiums have nothing to do with ordinary white-collar workers.

Presently average number of floors of buildings in this sector is from 3 to 3.5, which shows that sites are not densely used. One of the reasons is that there are still many residential areas where single or two-story housing are dominant. Some economists and city planners argue that, by introducing some systems including both regulations and incentives, one should make average floors of buildings increase to six or seven (like Paris) in order to increase housing supply and decrease the price of housing. In this argument, the opinion that development on small sites should be regulated is often included. However, I oppose the argument if the argument is done only from the viewpoint of increasing housing supply for the purpose of decreasing housing price. Preserving good residential areas is suitable for Tokyo from the viewpoint of environment and safety. Tokyo does not have to imitate Paris. Apart from residential areas, there are some opinions that claim large-scale and high-density redevelopment (of housing, office or/and commercial building) in "economically high potential" areas such as commercially zoned areas. The opinion is theoretically correct. However, actually, it is difficult to practice the idea because of the following reasons.

1) In many cases, in "economically high potential" areas,
leasehold is attached on the sites as I mentioned in the previous section. The revised Tenancy Law, by which new lease contract for business use except rental housing will automatically expire and the landowner regain fee simple right at the termination of the lease (usually, from 10 to 20 years), is not applied to existing leasehold. This means that the lease contract can always be renewed as long as the leasehold want to do so, which may unilaterally be advantageous to the leaseholder. Therefore, even if the landowner and the developer are willing to redevelop the site, things do not seem to go well.

2) It is difficult to obtain large sites. Usually, Japanese land sites are small. It takes much time to collect abutting small sites and make one large site (often, the work ends in failure).

In short, it is difficult to expect to restore the job-housing balance in Sector 2.

C. Sector 3

sector 3 developed as residential areas in suburbanization before World War 2. It is difficult to provide large-scale offices because suitable sites are
scarce. Similar to Sector 2, residential areas have expanded. The most important issue in this sector is how to evaluate existing "farmland in Urban Area". I assume that there are 17.5 km$^2$ (44 acres) of farmland in Urban Area in 23 wards of Tokyo. [Please see Table-5]. Assuming that 30 percent of the farmland are changed to building land and housing are built in the next ten years, 7,000 units of housing (most of them may be condominiums) will be provided annually. This is about six percent of housing units necessary [Note-10] in the Tokyo Metropolitan Area. This is not small impact. However, the problem is the same as I mentioned at the part of Sector 2; housing price will be quite high. Again, the condominiums will be built for "rich people" or for use of tax saving, and have nothing to do with ordinary white-collar workers.

In short, it seems difficult to expect to restore job-housing balance in Sector 3.

D. Sector 4

This sector developed as a light industry or a domestic industry area, whose characteristics are "mixed use of housing and industry" and "small site". Therefore, this sector is not suitable for large-scale office developments. The reason is similar to the part of Sector
2. As for housing development, there are several projects on the former sites of a factory. The price of the housing is lower, so there is a possibility that white-collar workers can get the housing. However, the total amount of the housing supply in this sector is small.

E. Sector 5

This sector developed as suburban residential areas of Tokyo during the second period. Because of the inadequate urban planning, this sector has become "sprawled form". In this sector, there are some Business-Core cities such as Makuhari (in Chiba prefecture), Omiya (in Saitama prefecture) and Tachikawa (in Tokyo Metropolis). In the Business-Core cities, there are several large-scale office development plans, which are expected to promote suburbanization of offices. In my view, there are some effects. However, from the viewpoint of jobhousing balance restoration, the plans are "halfway". Commuting time will be longer for some workers who already own housing, but will not be long enough to force the workers to change the commuting pattern; the workers do not have to replace their housing. When companies construct (for replacement) company-owned housing [Note-11], cost merit for suburbanization will be small because the land price is already quite high. In addition, since sites in this
sector has already become "sprawled forms", it seems to be difficult for the companies to get large sites for workers' housing (to some extent, there will be a change of the situation because of the change of the farmland tax system). As for office space cost itself, the rent will be half of the rent of offices located in Sector 1. However, the cost differences are not so large that departments which can suburbanize are limited (as for this issue, I will discuss in the next section of this chapter). In short, there are some effects to mitigate job-housing imbalance in this sector, but the effects are still limited.

F. Sector 6

Sector 6 exists outside of Sector 5. The distance between this sector and the center of Tokyo is more than 30 km (18.6 miles). It usually takes more than 90 minutes by either trains or cars to commute from this sector to Sector 1. However, in order for ordinary workers to purchase housing (either detached housing or apartment housing), it has become difficult to purchase housing in other than this sector. This sector has the following characteristics.
1) The City Planning Decision of the first loop expressway (National Capital Region Central Expressway) in the Tokyo Metropolitan Area has finished, and in some part of Saitama prefecture, construction has began. When the loop expressway is completed, there will be a network of this loop expressway and existing radial expressways (please see Figure-8) and accessibility by car (both between the center of Tokyo and suburbs and between suburbs) will increase to a great extent.

2) In Sector 6, rural land use, farmland and villages among farmland, is still dominant. Farmland in Urban Area in this sector is much larger than that in Urbanized Area (i.e., 23 wards of Tokyo, please see Table-5). As City Planning Area except Urban Area (usually, there is much farmland) is large, large sites are available. Therefore, large-scale developments are possible for both housing developments and office developments, or both. [If 50 percent of the area which is within 4 km from the loop expressway in Saitama prefecture is available, the area will be 234.8 km² (58.7km*8km*50%). This is 40 percent of the area of 23 wards of Tokyo.]

3) Land price is substantially low in this sector compared with the price in Sector 5. This implies that average whitecollar workers can obtain not only apartment housing but also townhouse and detached housing. As for
office development, cost merit which was not apparent at Business-Core cities in sector 5 will be substantial.

4) While there are potential merits both in housing and offices, companies will have to make both short-term and longterm programs for workers' housing. As for a short-term program, the basic method will be similar to the program of suburbanization in Sector 5. The long-term program depends on how the companies envision the workers' "life style" in the future and the physical design of development. Presently, most workers commute to the center of Tokyo by train, but cars will be the major means for commuting in Sector 6. The change of commuting form must be included in the program.

G. Necessity of Developments in Sector 6

Suburbanization of companies whose headquarters are (or, were) in the center of Tokyo (in Sector 1) has already began in Sector 5. However, the Business-Core City Plan which induced suburbanization was made after the situation that sprawl form had been made and the land price had increased. Companies that suburbanized the offices did not enjoy better environment and lower cost. On the other hand, office and/or housing development in Sector 1, 2, 3, and 4 does not solve job-housing imbalance. Sector
6 is, for urban development, the frontier. This has become possible by (a) construction of the loop expressway, (b) potential supply of building land by the change of the treatment of farmland in Urban Area, and (c) cheap land. Furthermore, Ministry of Agriculture, Forestry, and Fishery is considering (a) approval of owning farmland by stock companies in order to increase liquidity and productivity of farmland, and (b) compensation for farmhouses which abandon agriculture and agree to sell their farmland. The plan of Ministry of Agriculture, Forestry, and Fishery will help increase building land (the plan will be applied to both farmland in Urban Areas and farmland not in Urban Areas). How the companies think of the aforesaid situation for office location strategy and how prefectures, a metropolis, and municipalities treat the development in order to form "good cities" by master plans and/or other programs are important for the future second stage suburbanization.
6. Necessity of Second Stage Suburban Developments

A. Recent trends toward second stage suburban developments, particularly in Sector 6

In the proposition of the second-stage suburban developments, it is important to point out that the recent post-industrialization trend influences corporate strategies and workers sense of life values to a great extent, together with high price of land and housing.

1) Advantage and disadvantage of office location in the center of Tokyo

Figure-9 is the result of an investigation, which was done by Ministry of Construction in 1987. The questionnaire was sent to 1846 corporations listed on the stock exchange markets of Tokyo, Osaka, Nagoya, and other cities (729 corporations answered). According to the investigation, as for "information collection", "activities of executives", and "international business", more than 30 percent of the corporations answered that the works should be done in the center of Tokyo (23 wards). The answer well shows the present characteristic of Tokyo. As for "sales promotion planning", "fund raising and investment", and "marketing", 15 to 30 percent of the corporations answered that the works should be done in
the center of Tokyo (23 wards). On the other hand, as for "general and personnel affairs", "project planning", "R&D", and "software system development", less than 15 percent of the corporations answered that the works should be done in the center of Tokyo (23 wards); reliance on "the present characteristic of Tokyo" is not much. Therefore, in one corporation, the possibility of the suburbanization of departments varies with their works, given that the suburbanization can occur with one department as the unit.

Figure-10 is the result of an investigation, which was done by the National Land Agency in 1988. The questionnaire was sent to 1,714 corporations whose headquarters are located in the 23 wards of Tokyo [529 corporations answered]. The result shows that main disadvantages are "office space is not enough" and "rent and purchase price of office is high", which shows the sense of insufficient amount of office space supply. However, what should not be missed are "commuting time of workers is long" and "housing situation of workers is bad", which shows the corporations' concern about workers themselves. In addition, the corporations point out the problem of city function by referring to "traffic congestion is terrible".
2) Possibility of dispersion and suburbanization of office functions

Figure-11 is the result of the investigation, whose source is the same as that of Figure-10. According to Figure-11, presently "R&D" is the most popular function for suburbanization. In the future, however, "information transaction and system development", "education and training", and "business management function of overall corporate level (production, purchase and distribution management)" has a good possibility of suburbanization. This possibility shows the change of the economic structure; corporations are becoming "post-industrialized".

3) Examples of several corporations that moves all the headquarters functions to suburbs

Table-6 shows the examples of the corporations that moved all the headquarters functions to suburbs between 1984 and 1988. Most of them are manufacturing companies. The reasons for suburbanization are aggregation of headquarters functions and integration of the headquarters functions to factory place.

4) Change in workers' sense of values

Figure-12 shows that the number of workers who changed or intended to change companies where they worked increased substantially from 1982 to 1987. Figure-13 shows that younger workers does not stick to work for the same
companies than older workers.

5) The first-stage suburban offices

Recently, some large-scale projects are in process at the waterfront of Tokyo Bay, reflecting the strong demand of office space. The examples are Tokyo Bay Waterfront Sub-City Center Plan (5 km east from the center of Tokyo, 110,000 planned workers and 60,000 planned residents, belongs to Sector 1), Minato Mirai Plan (25 km south from the center of Tokyo, 190,000 planned workers and 10,000 planned residents, belongs to sector 2), and Makuhari New City Plan (25 km east from the center of Tokyo, 150,000 planned workers and 20,000 planned residents, belongs to Sector 5) [Figure-1].

In any of the aforesaid projects, office price is not so high, compared with the price of the office market of the center of Tokyo. However, if the additional cost which arises with suburbanization such as transportation cost and tele-communication cost, the aforesaid offices are not necessarily attractive for all the corporations. According to Table-7, the maximally allowable office price varies with departments in corporations when corporations consider to move to suburbs. The rental price of aforesaid offices is between 20,000 yen/month, 3.3m² and 40,000 yen/month, 3.3m² [$52/sqft-$104/sqft], which gives many corporations the sense that the price is higher than it should be. One of the reasons for the high price is that,
in Japan, there is the popular notion of insufficiency of land, which is the different situation from that of the United States.

6) Possibility of the second-stage suburban developments in Sector 6

In the second-stage suburban developments in Sector 6, there is the difference from the first-stage suburban developments in that there is enough land and development cost is low, which mean that, both in office and housing, type of design and the cost can match the corporations requirements (=innovative solution).

As the Table-7 shows, there is the possibility that several departments of corporations will move to suburban offices, which are located within two-hour time distance from the center of Tokyo. [If the time is over two hours, there will be the comparison between local cities and suburbs of Tokyo.] By taking the requirements of companies for suburbanization in the second stage suburban development plan into consideration, solution is possible.

7) Toward second stage suburbanization

As post-industrialization process goes on, many corporations in Japan are shifting their organizations from the mass-production oriented to the high-value addition and venture business oriented. In mass production system, corporations expected that the workers should
participate in forming the consensus for forwarding works. However, presently corporations expect workers other abilities such as special skills.

In forming consensus, intra-corporate face-to-face relationship was important. The person who participate in forming consensus got good evaluation. However, as corporate organization changes, the value of face-to-face relationship is decreasing at least in intra-corporate level (inter-corporate face-to-face is different): this tendency can be seen from the fact of suburbanization of R&Ds, information services, and some headquarters functions; in addition, many companies indicate possibility of suburbanization of business management and education/training sections [Figure-13]. Shin Nippon Seitetsu, the largest steel production company, realized the limitation of the reliance on the amount of steel production, and began new businesses. The new business department which is presently in the main office of Tokyo, is going to move to Makuhari office, which is planned to accommodate 2,050 workers.

In the past industrial-stage society in Japan, new white-collar workers lived in suburban rural areas and commute to offices located in the center of Tokyo, while factories were located in local areas. However, presently Tokyo does not allow the aforesaid life pattern of the white-collar workers any more: the average price of market housing is eight to ten times of workers' annual income;
even if the worker got the housing, commuting time (one way) would take 1.5 to 2 hours. In short, the past concept of the city form of Tokyo does not function today. In some wards in Tokyo, such as Chiyoda and Minato wards, the claim for affordable housing use the logic that derives from the aforesaid situation. However, the true reason of the claim has a political background. The notion of the first-stage suburbanization, which is referred to as Business-Core Cities in the National Capital Region Planning System, is not enough to solve the problem because the project plans based on the notion are inclined to supply as much office spaces as possible on the limited building land [Note-12]. A "general solution" should be suburban developments, especially second-stage suburban developments in Sector 6.
B. A Modified Rule of the National Capital Region Planning System

My analysis leads me to conclude that it is necessary to promote well-planned second stage suburban developments in sector 6. Then, the issue is how one can design a strategy to actually carry out such a bold objective. Before designing a strategy, I will raise issues that companies might face when they consider to move to second stage suburban areas. With regard to the issues, I will explore how public sectors' role should be. I conclude that, by learning the Makuhari's case, amplifying the existing national Capital Region Planning System should be the way to effectively promote second stage suburbanization.

1) Dilemma that companies might face and the necessity of public initiative

Compared to the third period, companies presently do not have a strong incentive to move their offices to suburbs although such suburbanization could give companies solution for workers' problems access. This lack of incentive is the result of a conflict between a short term strategy and a long-term one. In the third period, private companies desire to move their offices to suburbs including Business-Core cities in sector 5. Recently,
in the third period, there were three incentives that promoted suburbanization of offices. The first one was that private companies were able to raise funds at a very low cost; issuing convertible bonds or warrant bonds with low interest rate and/or common stocks with low dividend rates. The second one was that the executives were very optimistic for the future economy, and, by using low cost funds, invested in various kinds of equipments and R&D's, that resulted in the strong demand of office spaces in the suburbs. The third one was that investment in real estates, both in offices and housing for workers, was considered to be a reliable inflation hedge for companies' property management.

In the fourth period, however, the three good conditions that existed in the third period, have changed. In the short run, it is not likely that, without some public initiative, private companies or private developers will move into action for the second stage suburban developments. Public initiative for the second stage suburban developments is also justified from the long run perspective. Although economy is depressed in the present, the economy will recover in the future. If public sectors presently do not provide reasonable program for the second stage suburban developments in sector 6, new "sprawled developments", which would result in a mess of small-scale mixed use, will occur in sector 6 when the economy recovers. Therefore, public initiative has
two objectives; promotion of the second stage developments in the short run, and control of the developments in the long run.

2) Lessons from Makuhari's case

Makuhari is located at the Tokyo Bay waterfront area twenty miles east from the center of Tokyo [Figure-1]. The site area is 522.2 hectares (1,290 acres). Makuhari enjoys convenient transportation networks: it takes no more than thirty minutes from Makuhari to the center of Tokyo by either car or train; it takes approximately thirty minutes from Makuhari to Narita International Airport, the largest international airport in Japan, by car. The concept of Makuhari development is described as follows.

"Makuhari development, one of the three major projects in Chiba prefecture, publicized its theme as "Event and Technology". Placing the Makuhari Convention Center as the "anchor" facility, Makuhari development aims at "Future International Business City", which includes aggregation of new industry and R&D, international exchange, culture, education, commerce, and housing." (U. C. Planning, "Information of the Urban Development of Tokyo") [Table-8]

Presently, four companies move all the headquarters functions to Makuhari and five companies move part of
the headquarters functions to Makuhari. In addition, many companies move their R&D departments to Makuhari. The Makuhari Convention Center is already completed and six major city hotels are coming to Makuhari.

What is specifically characteristic is that its planning and implementation was done by Chiba prefecture's leadership; almost all the infrastructures and an exhibition facility were completed only by Chiba prefecture. This was made possible by the following three reasons.

a) Transfer of the sites for heavy industries to the sites for suburban office developments

Since the first period, Chiba prefecture has accumulated know-how to attract heavy industries to Tokyo Bay waterfront area. In most of the cases, creation of land by infilling the Bay and arrangement of necessary infrastructures were done as business of Chiba prefecture. In Makuhari's case, although planning decision of infilling was made in the second period (in 1973), it was in the third period (in 1980) that the actual work began. In other words, it was fortunate enough that, in Makuhari's case, infilling and arrangement of infrastructures to attract heavy industries in the second period were timely transferred to the use of suburban office and related multiuse developments in the third period.
b) Vicinity to Narita International Airport

Narita International Airport is located at the north of Chiba prefecture [Figure-1], and is easy of access from Makuhari by car; about thirty minutes. This accessibility is, together with the Convention Center, significant incentive to attract new industry, R&D and international business.

c) Makuhari Convention Center (total floor area: 131,346m² or 1,459,400 sqft)

Makuhari Convention Center is one of the major convention centers in Japan. Chiba prefecture has significant leadership in planning and constructing the convention center; Chiba prefecture invested in exhibition facility (management and administration are done by a third sector in which Chiba prefecture invested).

In considering the program design for second stage suburban developments, Makuhari's case has suggestion; if conditions are met, private companies suburbanize their offices including headquarters functions. In Makuhari's case, large sites, basic infrastructure (such as expressways, water supply, sewerage, tele-communication infrastructure), an international airport, and a convention center are either necessary or convenient factor for suburban office developments. Facing the successful fact in Makuhari's case, it seems that a prefecture can plan
and implement second stage suburban developments without national or inter-prefectural entity.

There is an objection to the argument. Makuhari's case was a special case; other than the convention center, necessary or convenient infrastructures had been already set before the present Makuhari plan started. In the National Capital Region, other than Chiba prefecture, there are other prefectures (and a metropolis) where second stage suburban developments will occur; Saitama prefecture, Ibaragi prefecture, Kanagawa prefecture, and Tokyo metropolis [figure-1]. It seems difficult for each prefecture (and metropolis) to provide "a set of menus" (i.e., large sites, basic infrastructures, and some attractive facilities such as a convention center) only by itself because of its conservatism against "new-type" developments and its budget constraints. In addition, even if each prefecture (or metropolis) has an ability to provide the menus, there is an apprehension of oversupply of the sites due to the unnecessary competition among the prefectures and metropolis [Note-13]. This is one of the reasons why the National Capital Planning System should have the role of the "guideline" for the program design for second stage suburban developments.

However, Makuhari's case gives a lesson to the present National Capital Planning System. Although the present (and the past) National Capital Region Planning System has had important roles in arranging the structure
of the National Capital Region, some additional improvements are necessary in order for the System to be the guideline for the program design of the second stage suburban developments.

The key of the improvements of the National Capital Region Planning System is to adjust the Plan to include factors that could attract companies considering suburbanization. In Makuhari's case, a convention center, commercial facilities, a baseball stadium, and vicinity to an international airport are additional attractive factors in addition to the basic factors necessary (such as large sites, expressway, etc.).

3) Reasons why amplifying the National Capital Region Planning System is necessary

It is apparent that the past National Capital Region Planning System well worked in the second period, when manufacturing industry was the main concern for the planning of the National Capital Region. The problem of the National Capital Region Planning System is that, in spite of minor changes, the frame of the System is still based on the notion of the industrial society, which has already gone. My standpoint is that it is better to utilize the existing National Capital Region Planning System with some improvements and the existing administrative structure that follows the System than to create a new planning system and administrative system.
that would cause unexpected problems. What is missing in the existing National Capital Region Planning System is the new concept which would help make suburbanization of office functions that are presently in the center of Tokyo. In order to put the new concept into the National Capital Region Planning System, the Makuhari's case would be useful in the sense that what conditions are necessary in order to promote to suburbanize office functions from public sectors' perspective. In the fourth period, the amended National Capital Region Planning System works well as long as the Planning System is flexible enough to include the consideration of the future change of the suburbanization situation.

4) Issues in Promoting Second Stage Suburban Developments by Amplified National Capital Region Planning System

There are two issues; a macro-level (National Capital Region level) one and a micro-level (municipal level) one.

a) Office development control by National Capital Region Planning System

In the short run, the main purpose of a public initiative utilizing the National Capital Region Planning System is to induce office development demand to suburbs (mainly Sector 6) when the economy recovers. Within the
National Capital Region Planning System, there has historically been no specific regulation of office development in any form. Such an idea comes from the success of Makuhari's case. Makuhari development, the first substantial relocation of all the headquarters functions to suburbs, occurred in the third period, when the economy was very strong. Facing the necessity of additional office spaces, the companies did move to Makuhari not because there was regulation of office supply in the center of Tokyo but because the companies, from their point of view of corporate strategy, thought that moving their headquarters to Makuhari would be more profitable than remaining in the center of Tokyo. In addition, Chiba Prefecture, a major party in the evolution of Makuhari development, was very active in attracting developers and office tenants; providing not only the minimally necessary factors such as large sites, basic infrastructures but also "convenient" factors such as good accessibility to Narita International Airport and a convention center. In short, the success of Makuhari's case was not the result of regulation of office supply in the center of Tokyo but the result of the suitable strategy of Chiba Prefecture at that time.

As mentioned before, under the direction of the National Capital Region Planning System, implementation of the first loop expressway, which passes through four prefectures and a metropolis, is under way. The first
loop expressway in the National Capital Region could be a strong incentive for prefectures, and municipalities to attract office functions in Sector 6. It is worth an attempt for the National Capital Region Planning System not to regulate new office developments in the center of Tokyo. This notion comes from the expectation that, when the economy recovers, there will be "reasonable competition" induced by the amplified National Capital Region Planning System among prefectures and a metropolis, and between central areas and second stage suburban areas [Figure-14]. This expectation of "reasonable competition" is based on the expectation of success like Makuhari's case. If reasonable equilibrium of office demand can be established without any regulation of new office development in the center of Tokyo, the National Capital Region Planning System does not have to regulate new office developments anywhere.

It is difficult to expect stronger economy in the future than the one that existed when Makuhari development was implemented. It is difficult to foresee relatively higher land price in the center of Tokyo (compared with the land price in Sector 6) than in the past when Makuhari development was implemented. In other words, it may be difficult in the future to expect the similar situation that there was strong incentive for corporations to move to suburbs in the third period, when Makuhari development occurred. Although economy will recover in the future,
the economy may not be strong enough for corporations to expand investments in suburbs. Presently land price in the center of Tokyo is stable or decreasing a little while land price in suburbs is still increasing a little.

In case the second stage suburban developments do not go forward substantially in spite of the recovery of office demand in the center of Tokyo, the National Capital Region Planning System should consider transfer of office demand to Sector 6 by the force of public policy. The justification of the public intervention of office demand control is the notion that competition among prefectures and a metropolis attracting companies to second stage suburban areas (Sector 6) will not occur if office demand is strong only in the center of Tokyo [Figure-19].

In the past, the National Capital Region Planning System successfully relocated factories in 23 wards of Tokyo to the suburbs by combining "restriction" and "attraction"; while restricting new, and extension of, building of factories in the Commercial and Business Area [Figure-1] since 1962, the National Capital Region Planning System has encouraged the supply of industrial sites in Economic Development Area [Figure-1] and has helped move factories in the Commercial and Business Area to Economic Development Area by using grants and beneficial tax treatments.

One might think that the successful experience in factory replacement case is applicable to office
suburbanization case. However, the main reason for the success in factory replacement case is that factories have kept substantial productivity in suburbs. In the case of offices, however, there is no adequate data to assure "enough productivity". This is the reason why one is not certain of suburbanization of office development by force of public policy; if suburbanization of offices by force of public policy substantially decreases company's productivity, the policy should be more careful. The for public policy rests between two alternatives; strong intervention of office demand in order to force suburbanization on the one side, and minimum or no incentive in order to keep the economy strong as a whole.

Therefore, in the future, when economy and, subsequently, office demand recover, office development control in the National Capital Region should carefully be considered by National Capital Region Planning System if suburbanization does not go forward sufficiently under its own power.

b) Cooperation of a municipality and a developer

Practically, a municipality has an important role in urban development; making and changing a master plan including zoning change, arrangement of urban facilities, and implementation of Urban Development Project [Figure-14]. In Japan, every municipality has a master plan, which has a legal validity based on City Planning
Code. Ministry of Construction gives a guideline to prefectures and municipalities in making a master plan. A municipality proposes a master plan and the prefecture where the municipality belongs gives an approval of the plan to the municipality [Figure 14-1]. In case of Arrangement of Urban Facilities (and Urban Development Projects), the relationship between the municipality and the prefecture is bilateral [Figure 14-2].

In any event, a municipality is the first party that a private developer faces. A municipality should have the role to make the development concept compatible with local resources, characteristics of office demand, residential environment, and the management of farmland by making good use of the master plan and other methods. Therefore, in a practical sense, it is necessary to have an effective cooperation of a municipality and a developer.

In proceeding with the development, the problem is that, it is often the case that municipalities do not have enough power [Note-14] and ability to construct effective public-private cooperation. In such a case, there are two ways by which the developer succeeds in the project [Figure-15]. The first one is the ordinary case; although, the municipality proposes the project to the prefecture and makes necessary arrangements with the prefecture and the developer does not negotiate directly with the prefecture, the developer substantially supports the municipality. The second case is that the
developer is substantially permitted by the municipality
to negotiate with the prefecture although the municipality
plays the role formally. When the municipality do not
have ability to coordinate the project and is obstinate
enough not to give the substantial initiative to the
developer, the project fails [Figure 15, case-3].

In order for the second stage suburban developments
to proceed efficiently and to harmonize with local
requirements, it is worth considering the argument that
the necessary power [Note-14] to practice urban
development should be transferred to municipalities from
the prefecture [Note-15]. For the time being, skilled
planning consultants should have the role of "third party",
who promote the public-private cooperation by showing
the best way possible for each suburban development under
the constraints of the present administrative system.
In addition, skilled planning consultants should make
an effort to construct public opinions which clarify the
necessity to strengthen municipality's power and
responsibility.
C. The Role of the Private Sector (Corporate Strategy)

This section intends to clarify the role of the private sector in promoting the second stage suburban developments by referring to (a) recent change in corporate strategy, and (b) how the change in corporate strategy has influenced recent suburbanization of offices. Change in industrial structure is a main viewpoint. In relation to the viewpoint, there are three factors; (1) increase in the rate of workers engaged in service and "value-add" departments in manufacturing industry, (2) strengthening of mutual relationship between manufacturing industry and tertiary industry because of the manufacturing industry's adoption of the "outsider's service" (here, outsider means tertiary industry), and (3) dispersion of business departments and foundation of subsidiaries in manufacturing companies.

1) Increase in the rate of workers engaged in service and value add departments in manufacturing industry

Increase in service area in national economy means not only the increase in the rate of tertiary industry but also the increase in the rate of service and value-add departments (for example, survey, marketing, planning, design, research and development, sales promotion, and advertisement) in manufacturing industry. The workers
engaged in such jobs in manufacturing industry are called "white-collar workers". As for white-collar workers, they increased by 6.59 million, and the rate in employment increased from 26 percent to 33 percent between 1971 and 1987 in national level (Table-1). In the Tokyo Metropolitan Area, white-collar workers increased by 2.26 million during the same period. The increase corresponds to 34 percent of the increase in national level. The rate of white-collar workers in all the workers in the Tokyo Metropolitan Area increased from 34.5 percent (in 1971) to 40.0 percent (in 1987). Therefore, it is obvious that, in the Tokyo Metropolitan Area, increase in white-collar workers is conspicuous.

2) Strengthening of mutual relationship between manufacturing industry and tertiary industry

In response to the increase in the demand of service-related works in manufacturing industries, manufacturing companies not only increase the supply within the companies but also increase the purchase of outer service. This is the large factor that increases the rate of tertiary industry. Figure-3 shows the changes in the intermediate input ratio from outer services in five industries. The figure shows, except agriculture and forestry industry, manufacturing-related industries made substantial increase from 1975 to 1990.
3) Dispersion of business departments and foundation of subsidiaries in manufacturing industry

In many manufacturing companies, reorganization of existing business departments and foundation of new departments are under way. Among the tendency, some manufacturing companies found subsidiaries which engage in service businesses. In the process of reorganization and foundation of business and other departments, some departments (and, sometimes, subsidiaries), such as machine design, engineering, information service, research and development, are changed their office locations **within the National Capital Region**. Among the aforesaid departments, the situation of research and development departments and information service departments are as follows.

a) Research and development offices

Table-10 shows the recent R&D office location. More than 60 percent are built on the existing business office/factory sites. Fifty two percent of the R&D offices located in the existing business office/factory sites are situated in the National Capital Region [Note-16]. As for the new R&D offices built on separate sites, more than 60 percent of them are situated in the suburbs of National Capital Region. The aforesaid tendency implies that **main factories of manufacturing corporations are situated in the National Capital Region, and the R&D office**
location has relationship with the existing main factories. The relationship means geographical vicinity between the R&D offices and the existing main factories.

b) Information service offices

Recently, the number of information service offices are increasing. The number of offices are increasing not only in National Capital Region but also nationwide [Figure-17].

4) Suburbanization of offices

Table-11 is the summary of the corporate strategy and the office location based on the research data of NIKKEI NEEDS-IR information service, showing how the former affects the latter. Specifically, the focus is on the office location for whitecollar workers.

a) R&D and information offices:

The offices have already suburbanized to Sector 5 and Sector 6. In addition, many offices are situated outside of Sector 6. "Attractiveness of sites" including reasonableness of the price of the land, environment for workers including housing condition, and road and railway networks is important such offices.
b) Part of headquarters functions and all the headquarters functions:

Part of headquarters functions and all the headquarters functions can be seen in Makuhari, which belongs to Sector 5. The reason for the suburbanization is that (a) vicinity to Narita International Airport (within 30 minutes), and (b) existence of a large convention center were incentives which Sector 1 and Sector 2 do not have.

c) Financial institutions:

The introduction of the third-stage on-line system, which requires much investment, induced financial institutions to suburbanize offices. The suburbanized offices are called back offices. One of the reasons for the recent huge investment is that the companies and systems invested in 1960's, when the first-stage on-line system began, has been depleted economically. As Table-4 shows, some companies have already finished the investment by building back offices, but there are still many companies which have not finished introducing the new system. The fact that many back offices "invaded" in New Towns show that suitable supply of sites are insufficient in suburbs despite much demand.

d) Service industry:

Service industry is the one that supplies
"intermediate input" shown in Figure-16. Service industry, generally, still remain in the center of Tokyo although user companies already began suburbanization. If a service company transacted business with a single user company, suburbanization of the user company might be the incentive for the service company to suburbanize. However, a service company usually transacts business with several user companies. Therefore, unless the user companies suburbanize in the same direction, the service company remains in the center of Tokyo [Figure-18].

5) Summary

The change in corporate strategy based on the change in industrial structure influences on office location to a great extent. In case of R&D and information service offices, suburbanization is already popular. In deciding the suburban sites for such companies, "good condition" such as large sites, convenient accessibility, low price and environment for workers has been important factors. As for suburbanization of part or all of the headquarters functions, which can be seen in Makuhari, infrastructure incentive such as a convention center and an airport, that can be seen in Makuhari's case, is important [Note-17]. As for back offices of financial institutions, the condition for suburbanization seems to be similar to that of R&D offices; "good conditions". However, financial institutions usually have difficulty finding
suburban sites, which manufacturing companies can often get easily. As for service industry, there is not clear tendency of suburbanization so far.
7. Outstanding Issues for Future Research: Political Alignments

A. Necessity of Public Sectors' Provision for the Future

Since the end of the "bubble economy" in 1990, Japanese economy has been under depression: Nikkei Average Stock Price fluctuates around 18,000 yen, below the half of the price of the beginning of 1990; numerous major companies whose profit had gone up continually for the recent years experienced decrease in the profit; companies are bearish for new investment because of the lack of topics which could make companies optimistic for the future economy. Nevertheless, it is generally said that fundamental structure of Japanese economy is strong and that, from the past experience, the economy will recover in three or five years in the future.

As I mentioned earlier, Japanese companies, especially manufacturing companies, have been restructuring their organization toward the "authentic" postindustrial society since the oil shock in 1973. Presently, development toward second stage suburbanization of the companies is temporarily "reposed" because of the influence of the depression as a whole. However, it is expected in the near future that the potential suburban office demand in the sixth sector will increase as the result of the
companies' continuing restructuring.

In retrospect, failure of public policy in the "bubble economy" period -unable to stop accelerated concentration of office supply in the center of Tokyo- gives us a lesson: effective public initiative which would lead to suitable suburbanization in the face of increase in office demand is necessary. One exception is the Makuhari's case; Chiba Prefecture, somewhat by chance, began planning and implementation of the development to attract companies from the center of Tokyo before the third period, which eventually leads to success enough to attract four major companies' headquarters. However, the amount of offices (and housing) that are available in Makuhari is quite limited compared to the whole demand in the National Capital Region. In addition, the land of Makuhari Development is owned by Chiba Prefecture because Chiba Prefecture created the land by infilling part of Tokyo Bay. If one regard the Makuhari's case as a good predecessor, the basic notion of public sectors' initiative should be to expand strategic factors of Makuhari's case to broader areas in the National capital Region, particularly in the sixth sector. In other words, as for the potential office demand in the sixth sector,

(1) A strategy of the National Capital Region level is necessary.

(2) To attract private developers, which mainly carry
out second stage suburban developments, in the development process is necessary.

Based on these two points, arrangements for the political alignment, which will be shown in the next section, is necessary.

B. Roles of the National Capital Region Planning System and Prefectures

The National Capital Region Planning System and prefectures should finish the followings before the economy recovers and the potential demand of offices in the sixth sector becomes apparent in the near future.

a) The National Capital Region Planning System:

(1) Should give previous notice of promotion of second stage suburban developments. In particular,

(a) Possibility of regulation of office supply in the center of Tokyo in the near future
(b) Possibility of supply of large sites for office (and housing) developments in the sixth sector

(2) Should urge every prefecture make a basic plan for second stage suburban developments. In particular,
(a) Selection of several "target" places for second stage suburban developments in the sixth sector
(b) Land use plan in the target place
(c) Target office functions; all the headquarters, part of the headquarters, R&DS, back offices, software service offices, etc.
(d) "Attractive" facilities; convention center, institute of technology, etc.

b) Prefectures

Prefectures should make a implementation plan, in principle, based on the basic plan suggested in the National Capital Region Planning System. Particular concerns are:

(1) Ways to acquire land; condemnation, Land Readjustment [table-2]. lease, etc.
(2) Arrangement of infrastructure
(3) Placement of suitable "attractive" facilities

C. Monitoring of the Promotion of Second Stage Suburban Developments

The direct effect of the modified National Capital Region Planning System is to urge every prefecture make the implementation plan in order not to repeat public
sectors' failure in the period of "bubble" economy. However, the ultimate objective is to promote second stage suburban developments through a successful cooperation between a developer and a municipality. A developer and a municipality will make a good start and implementation that follows on condition that they are able to share optimistic view of suburban office demand sometimes in the future.

Therefore, the modified National Capital Region Planning System should be careful to monitor how the second stage suburban developments are actually planned and implemented in every "target" place. If substantial second stage suburban developments do not proceed in the "target" places, the modified National Capital Region Planning System should be flexible enough to introduce what the National Capital Region Planning System noticed previously; regulation of office supply in the center of Tokyo. In order to implement the office regulation, it is necessary for the regulation to be legislated. National government agency, such as Ministry of Construction, Ministry of International Trade and Industry, or joint effort of the two Ministries, draws up the bill. The majority of the ayes in the Parliament are necessary for the bill to be legislated. Although introduction of the regulation is, from the perspective of the National Capital Region (in other words, inter-prefectural perspective), a strong measure to promote second stage suburban developments
in the future, there is political complexity concerning the introduction of the regulation law. In the present situation that headquarters of major companies are concentrated in the center of Tokyo, Tokyo Metropolis enjoys huge income of enterprise tax on corporation. Other prefectures in the National Capital Region envy Tokyo Metropolis.

Tokyo Metropolitan Government may object to the legislation of the bill, which might reduce the income of enterprise tax on corporation substantially. However, the legislation of the bill, which permits intervention on the part of the National Capital region Planning System, will have an incentive effect among other prefectures in that the legislation will encourages them to compete with one another (including Tokyo metropolis) to attract companies in their suburban areas [Figure-19]. In short, there is conflicts of interest between Tokyo Metropolis and other prefectures in the National Capital Region concerning the introduction of the regulation law.

In the past, Factory Reallocation Law, together with management of the Law by the National Capital Region Planning System [Note-3], was driving force to construct industrial parks in the prefectures in the National Capital Region; 32 industrial parks whose total area is 6,314 hectares. Implementation of the office regulation in the center of Tokyo entails not only decision of when to start it but also the political complexity. However,
in order to propel second stage suburban developments, public sectors concerned should make efforts for people to understand their importance and to build consensus of opinions of the way to actually carry them out.
source: National Land Agency, "Daitoshi ken no seibi (Arrangement of Metropolitan Areas)"
Figure-2  Commuting Time (within 70 km area)

(source: Ministry of Transportation, "Transportation census in large cities")

Figure-3  Possibility of Owning a House

(source: Weekly Housing Information, "Survey about young adults, 1991")
Figure-4 Change in Employment Structure

source: General Affairs Agency, "Report on business office survey"

Figure-5 Change in Employment Structure (Tokyo Metropolitan Area)

source: General Affairs Agency, "Report on business office survey"
Figure-6 Classification of Sectors
Figure-7  Relationship between Sectors and Prefectures

Saitama Prefecture

Tokyo Metropolis

Kanagawa Prefecture

Chiba Prefecture

Tokyo Bay

Figure-8  Expressway Network

loop expressway

Narita Airport
Figure-9

Business difficult to do out of the 23 wards of Tokyo

nothing particular
activities of executives
general affairs, personnel affairs
total planning
investigation
sales planning, marketing
planning and development of commodities and products
new business development
information collection
publicity and advertisement
international business
fund raising
fund investment
purchase
sales promotion management of overall corporate level
development of production technology
R & D
computer software development
others
no answer

[questionnaires: corporations listed on the stock exchange markets of Tokyo, Osaka, Nagoya, and other cities (1846 corporations, 729 answered)]

Source: Ministry of Construction, "Survey of urban policy concerning 'new times', 1987"
Figure-10

Disadvantage to place headquarters in Tokyo
(investigated in 1987)

source: investigation by National Land Agency in 1988
[Questionnaire sent to 1,714 companies whose headquarters are located in 23 wards of Tokyo, 529 companies answered]
Present Situation and Future Possibility of Dispersion and Suburbanization of Headquarters Departments

(headquarters department)

- business management planning
- financial and general affairs, accounting
- publicity, advertisement, investigation
- education, training
- sales promotion plan and management
- international business
- business management of overall corporate level (production, purchase, distribution management)
- information transaction, system development
- technology and development
- research (R&D)

all the headquarters departments

no answer (no possibility to move)

(source: same as the source of Figure-10)
Figure-12  Transition of the Number of Workers Who Changed or Intended to Change Companies Where They Worked

<table>
<thead>
<tr>
<th>Year</th>
<th>Workers Who Changed Companies</th>
<th>Workers Who Intended to Change Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>1,513</td>
<td>2,646</td>
</tr>
<tr>
<td>1987</td>
<td>4,972</td>
<td>5,999</td>
</tr>
</tbody>
</table>


Figure-13  Intention to Continue to Work for the Same Companies

<table>
<thead>
<tr>
<th>Intention</th>
<th>Total</th>
<th>25 - 34 (age)</th>
<th>35 - 49</th>
<th>50 - 64</th>
<th>65 - 74</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>53.7</td>
<td>20.6</td>
<td>25.3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>41.4</td>
<td>27.5</td>
<td>30.9</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>62.6</td>
<td>22.8</td>
<td>24.7</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>63.8</td>
<td>11.7</td>
<td>23.9</td>
<td></td>
</tr>
</tbody>
</table>

1 One should work for the same companies as long as he can.
2 One should change companies where he works, depending on his ability and salary.
3 Difficult to determine whether one should work for the same companies or not.
4 No answer.

Implementation of Urban Development based on City Planning Code

**<Figure 14-1>** Making and changing a master plan including zoning change

- **approval of change in zoning**
- development projects (either in private or public project)
- proposition of necessary change in zoning
  - land use in building site
  - subdivision plan
  - change of agricultural land to building land

**<Figure 14-2>** Arrangement of urban facilities

- grants by general account
- direction of placement of facilities
  - budgets for facilities
  - inter-municipal level
  - entrust

 Minister of Home Affairs
 other (*) Ministries
 grants by special account

 Minister of Home Affairs
 other (*) Ministries
 grants by special account

 - necessity which arises with developments
 - necessity in implementing master plan
 - request of placement of facilities
Two characteristics as follows:
- mixture of the pattern of "change in zoning" and "arrangement of Urban Facilities"
- national grants given for specific projects approved as "Urban Development Projects" [Table-2] by the prefecture (the process is the same as the zoning change process)

Structure of grants

<table>
<thead>
<tr>
<th>1/3 national governmental agency</th>
<th>total costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Construction</td>
<td>(*)</td>
</tr>
<tr>
<td>1/3 prefecture</td>
<td>total grants</td>
</tr>
<tr>
<td>1/3 municipality</td>
<td></td>
</tr>
</tbody>
</table>

"pure" cost

(*) Each Ministry has its system for specific projects for which the Ministry gives grants.

Examples of projects each ministry has are as follows:
- Ministry of Construction: road construction, park construction, housing construction
- Ministry of International Trade and Industry: promotion of industries
- Ministry of Agriculture, Forestry, and Fishery: arrangements of rural towns, arrangements of agricultural infrastructure
- Ministry of Transportation: railroad construction, new transportation system
- Ministry of Posts and Telecommunications: telecommunication infrastructure
- Ministry of education: placement of universities, national research centers
Prefecture

Municipality

Developer

Figure-15 Pattern of "bottom-up" of projects

<table>
<thead>
<tr>
<th></th>
<th>case-1</th>
<th>case-2</th>
<th>case-3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>success</td>
<td>success</td>
<td>failure</td>
</tr>
<tr>
<td>Prefecture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developer</td>
<td>ordinary case</td>
<td>&quot;weak&quot; or &quot;flexible&quot; municipality</td>
<td>&quot;weak&quot; but obstinate municipality which objects to developer's initiative</td>
</tr>
</tbody>
</table>

[e.g., Makuhari]
Figure-16 Change in the Intermediate Input Ratio from Services

O- agriculture, forestry and fishery
□- living-related
△- basic material
×- processing
●- mining, construction

source: Ministry of International Trade and Industry, "Advancing Structure Adjustment and Prospects of Industrial structure"

Figure-17 Change in the Number of the Information-Service Enterprises

Figure-18  Relocation of Service Companies

Recent Situation

Service Company does not suburbanize

Future Possibility

Service Company might suburbanize

- Service Company
- User Company

Figure-19  Competition structure

Competition between central area and suburban area

Competition among prefectures and a metropolis

Figure-20  Limitation of Commuting Time

<table>
<thead>
<tr>
<th>Time Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 min - 45 min</td>
<td>8.8%</td>
</tr>
<tr>
<td>45 min - 1 hour</td>
<td>13.8%</td>
</tr>
<tr>
<td>1 hour</td>
<td>52.1%</td>
</tr>
<tr>
<td>1.5 hour</td>
<td>19.7%</td>
</tr>
</tbody>
</table>

source: The Prime Minister's Office, "Report on Opinions about Housing in Large Cities"
Table-1  Transition of Population (from 1945 to 1985)

<table>
<thead>
<tr>
<th>Era</th>
<th>the whole country</th>
<th>National Capital Region</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>area (km$^2$, in 1985)</td>
<td>area (km$^2$, in 1985)</td>
</tr>
<tr>
<td>1945</td>
<td>377,801.01 (100%)</td>
<td>36,631.71 (9.7%)</td>
</tr>
<tr>
<td>1950</td>
<td>71,998,104 (100%)</td>
<td>15,243,911 (21.2%)</td>
</tr>
<tr>
<td>1955</td>
<td>84,114,574 (100%)</td>
<td>19,03,926 (22.7%)</td>
</tr>
<tr>
<td>1960</td>
<td>90,076,594 (100%)</td>
<td>21,456,474 (23.8%)</td>
</tr>
<tr>
<td>1965</td>
<td>94,301,623 (100%)</td>
<td>23,785,045 (25.2%)</td>
</tr>
<tr>
<td>1970</td>
<td>99,209,137 (100%)</td>
<td>26,963,328 (27.2%)</td>
</tr>
<tr>
<td>1975</td>
<td>104,665,171 (100%)</td>
<td>30,257,924 (28.9%)</td>
</tr>
<tr>
<td>1980</td>
<td>111,939,643 (100%)</td>
<td>33,621,520 (30.0%)</td>
</tr>
<tr>
<td>1985</td>
<td>121,048,923 (100%)</td>
<td>37,618,340 (31.1%)</td>
</tr>
</tbody>
</table>

source: National Census
Table-2 Political and Institutional Structure

Constitution

Self-Governing Law

(principle of the right of private property)

Classification

(restriction of the right of the property)

National Land Agency

National Capital region Planning System

City Planning Code

Building Code

City Planning Code

Building Code

いくつかのゾニング

- 1st residential
- 2nd residential
- residential
- neighborhood commercial
- commercial
- quasi industrial
- industrial
- industrial only

Arrangement of urban facilities

[roads, express railroads, parks, green areas, waterworks, sewer systems, rivers, schools, markets, public facilities, etc.]

**Land Readjustment**

- *New Residential Area Development*
- *Industrial Park Development*

Urban development projects

- suburban area
- city area

[*--- prefectures, municipalities, and Housing and Urban Development Corporation have the right to condemn land.*]
Table-3 Ministries in Japanese Government

(*): Ministry of Construction
(*) Ministry of International Trade and Industry
(*) Ministry of Home Affairs
(*) Ministry of Agriculture, Forestry and Fishery
(*) Ministry of Transportation
(*) Ministry of Posts and Telecommunications
(*) Ministry of Education

Ministry of Foreign Affairs
Ministry of Finance
Ministry of Labor
Ministry of Health and Welfare
Ministry of Justice

[(*): Ministries that have significant relation to the National Capital Region Planning System]
### Table-4 Summary of Six Sectors

<table>
<thead>
<tr>
<th>Sector(*)</th>
<th>Potential Site for Development</th>
<th>Office</th>
<th>Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Center of Tokyo (3,500-6,000)</td>
<td>- Redevelopment</td>
<td>City-type office (high rise, high density)</td>
<td>Housing by &quot;linkage&quot; system</td>
</tr>
<tr>
<td>2. Uptown (1,500-4,200)</td>
<td>- Sub-city center</td>
<td>City-type office (high rise, high density)</td>
<td>Condominium (high rent)</td>
</tr>
<tr>
<td>3. Periphery of Uptown (850-2,100)</td>
<td>- Change of farmland to building land</td>
<td>[Lack of suitable sites]</td>
<td>Condominium (high rent)</td>
</tr>
<tr>
<td>4. Mixed Land Use of Residence and Industry (700-1,500)</td>
<td>- Former site of a factory</td>
<td>[Lack of suitable sites]</td>
<td>Apartment</td>
</tr>
<tr>
<td>5. Suburban Residential Area (200-850)</td>
<td>- Change of farmland to building land</td>
<td>City-type office (high rise)</td>
<td>Suburban-type office (low rise)</td>
</tr>
<tr>
<td>6. New Suburban Area (-200)</td>
<td>- Change of farmland to building land</td>
<td>City-type office (high rise)</td>
<td>Suburban-type office (low rise)</td>
</tr>
</tbody>
</table>

(*) Land price of residential area ($/sqft)

### Table-5 Population and Area

<table>
<thead>
<tr>
<th>Sector</th>
<th>1, 2, 3, 4</th>
<th>5, 6</th>
<th>(b)+(c)</th>
<th>(d)+(e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefecture</td>
<td>23 wards of Tokyo</td>
<td>Tokyo Metropolitan except 3 wards</td>
<td>Saitama Prefecture</td>
<td>Kanagawa Prefecture</td>
</tr>
<tr>
<td>Population</td>
<td>8,354,615</td>
<td>3,474,748</td>
<td>5,863,678</td>
<td>7,431,974</td>
</tr>
<tr>
<td>Area (km²)</td>
<td>597.89</td>
<td>1,564.45</td>
<td>3,779.32</td>
<td>2,402.07</td>
</tr>
<tr>
<td>C.P.A. (*1)</td>
<td>595.91</td>
<td>1,121.15</td>
<td>2,647.07</td>
<td>1,990.59</td>
</tr>
<tr>
<td>Urban Area</td>
<td>565.53</td>
<td>490.43</td>
<td>674.20</td>
<td>913.73</td>
</tr>
<tr>
<td>Farmland</td>
<td>70.14</td>
<td>176.95</td>
<td>126.95</td>
<td>85.92</td>
</tr>
<tr>
<td>Others</td>
<td>30.18</td>
<td>630.72</td>
<td>1,973.77</td>
<td>1,076.86</td>
</tr>
</tbody>
</table>

(*1) City Planning Area  
(*2) Estimation  
Source: National Census, 1985  
[1 km² = 250 acres]
<table>
<thead>
<tr>
<th>business classification</th>
<th>address</th>
<th>note</th>
</tr>
</thead>
<tbody>
<tr>
<td>A company (foods)</td>
<td>Chiyoda-ward Yokohama, Kanagawa</td>
<td>aggregation of headquarters functions which had been dispersed</td>
</tr>
<tr>
<td>B (textile)</td>
<td>Chuo-ward Ebina, Kanagawa</td>
<td>transfer of headquarters to factory place</td>
</tr>
<tr>
<td>C (paper,pulp)</td>
<td>Chuo-ward Fuji, Shizuoka</td>
<td>transfer of headquarters to factory place (except sales promotion department)</td>
</tr>
<tr>
<td>D (steel)</td>
<td>Minato-ward Ichikawa, Chiba</td>
<td>transfer of headquarters to factory place</td>
</tr>
<tr>
<td>E (machine tool)</td>
<td>Chuo-ward Abiko, Chiba</td>
<td>transfer of headquarters to factory place</td>
</tr>
<tr>
<td>F (machine)</td>
<td>Shinjuku-ward Kodaira, Tokyo</td>
<td>transfer of headquarters to factory place</td>
</tr>
<tr>
<td>G (auto)</td>
<td>Chuo-ward Kosei, Shizuoka</td>
<td>transfer of headquarters to factory place</td>
</tr>
<tr>
<td>H (auto)</td>
<td>Taito-ward Atsugi, Kanagawa</td>
<td>connection of administration department and sales promotion department</td>
</tr>
<tr>
<td>I (electric machine)</td>
<td>Shinjuku-ward Fuchu, Tokyo</td>
<td>aggregation of headquarters functions which had been dispersed</td>
</tr>
<tr>
<td>J (railroad)</td>
<td>Toshima-ward Tokorozawa Saitama</td>
<td>as the corporate strategy; group companies were transferred and aggregated</td>
</tr>
<tr>
<td>K (railroad)</td>
<td>Shinjuku-ward Tama, Tokyo</td>
<td>as the corporate strategy; a hotel was built after the transfer of the headquarters</td>
</tr>
</tbody>
</table>

source: Toyo Keizai, "Kaisha Shikihou" (quarterly report of the companies listed on the stock market)
Table-7

Possible places and conditions for relocation of headquarters departments

<table>
<thead>
<tr>
<th>Rental cost of offices</th>
<th>do not mind</th>
<th>-25,000 yen</th>
<th>-20,000 yen</th>
<th>-15,000 yen</th>
<th>-10,000 yen</th>
<th>-5,000 yen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td>Time distance from the center of Tokyo</td>
<td>do not mind</td>
<td>-3 hours</td>
<td>-2.5 hours</td>
<td>-2 hours</td>
<td>-1.5 hours</td>
<td>-1 hour</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Types of area and city</td>
<td>others</td>
<td>Tokyo Metropolitan Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>headquarters department</th>
<th># of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>business management planning</td>
<td>35 28 2 7 8 7 4 - 1 - 3 4 8 7 2 1</td>
</tr>
<tr>
<td>financial and general affairs, accounting</td>
<td>39 32 1 9 9 8 3 1 1 - 3 9 10 5 3 1</td>
</tr>
<tr>
<td>publicity, advertisement, investigation</td>
<td>34 29 3 4 11 6 3 - 1 1 4 3 9 7 2 1</td>
</tr>
<tr>
<td>education, training</td>
<td>118 117 15 5 20 33 32 2 11 12 34 30 15 15 3 8</td>
</tr>
<tr>
<td>sales promotion plan and management</td>
<td>35 26 8 6 11 2 4 1 - 2 3 8 9 5 1 2</td>
</tr>
<tr>
<td>international business</td>
<td>28 22 2 1 9 8 2 - 1 1 6 5 7 1 1</td>
</tr>
<tr>
<td>business management of overall corporate level (production, purchase, distribution management)</td>
<td>62 52 10 7 14 12 11 1 3 7 15 13 11 7 2 5</td>
</tr>
<tr>
<td>information transaction, system development</td>
<td>122 120 6 12 35 27 32 - 2 9 18 30 29 23 2 8</td>
</tr>
<tr>
<td>technology and development</td>
<td>88 80 10 3 16 27 17 3 6 6 14 30 11 12 2 6</td>
</tr>
<tr>
<td>research</td>
<td>80 71 15 1 8 20 30 3 11 5 23 27 7 6 2 6</td>
</tr>
<tr>
<td>all the headquarters departments</td>
<td>62 12 4 11 24 3 5 - 1 2 6 11 12 7 5 3</td>
</tr>
</tbody>
</table>

(source: same as the source of Figure-10)
### Table-8  Land Use of Makuhari Development

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (hectares)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business and R&amp;D</td>
<td>83.8</td>
<td>16.0</td>
</tr>
<tr>
<td>Town Center</td>
<td>33.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Parks and Green Area</td>
<td>107.5</td>
<td>20.6</td>
</tr>
<tr>
<td>Culture and Education</td>
<td>88.2</td>
<td>16.9</td>
</tr>
<tr>
<td>Housing</td>
<td>38.9</td>
<td>7.4</td>
</tr>
<tr>
<td>Public Facility</td>
<td>28.6</td>
<td>5.5</td>
</tr>
<tr>
<td>roads and Other Use</td>
<td>142.2</td>
<td>27.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>522.2</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### Table-9  Change in White-Collar Workers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A (workers)</td>
<td>1924</td>
<td>1325</td>
<td>1237</td>
<td>1237</td>
<td>1237</td>
<td>1237</td>
</tr>
<tr>
<td>B (white-collar workers)</td>
<td>1325</td>
<td>1237</td>
<td>1237</td>
<td>1237</td>
<td>1237</td>
<td>1237</td>
</tr>
<tr>
<td>A - B</td>
<td>599</td>
<td>288</td>
<td>288</td>
<td>288</td>
<td>288</td>
<td>288</td>
</tr>
<tr>
<td>A + B</td>
<td>3333</td>
<td>2562</td>
<td>2562</td>
<td>2562</td>
<td>2562</td>
<td>2562</td>
</tr>
</tbody>
</table>

**Source:** The Prime Minister's Office, "Report on Basic Working Structure"

### Table-10  Trend in Location of R&D Offices

<table>
<thead>
<tr>
<th>Pattern</th>
<th>1979-1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>located on the same sites where factories presently exist</td>
<td>National Capital Region: 179 (59.5%)</td>
</tr>
<tr>
<td>located on new sites</td>
<td>National Capital Region: 120 (40.1%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>National Capital Region: 299 (100.0%)</td>
</tr>
</tbody>
</table>

**Source:** Nikkei Sangyo Shinbun, "NEEDS-IR"
<table>
<thead>
<tr>
<th>Pattern</th>
<th>Note</th>
<th>Place</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of external service</td>
<td>There is a strong connection between service companies and user companies. Suburbanization of service companies depends on suburbanization of user companies.</td>
<td>Suburbanization of this kind of companies is not clear.</td>
<td></td>
</tr>
<tr>
<td>Diversification headquarters functions</td>
<td>Reflecting the restructuring and foundation of business departments, manufacturing companies suburbanize the departments which are relatively &quot;self-sufficient&quot;.</td>
<td>Makuhari [5 companies]</td>
<td>5</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Suburbanization of R&amp;D offices is becoming popular. Although it is not necessary that R&amp;Ds abut on existing factories, it is preferable that the two are near. Environment for workers is important.</td>
<td>Makuhari [6 companies]</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kohoku N.T. [9 companies]</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dispersed in Sector 5, 6 and outer places</td>
<td></td>
</tr>
<tr>
<td>Information services</td>
<td>Self-sufficiency is the strongest among all the departments. In addition, expensive investment is not necessary. Rather, human resource is the most important. Therefore, the offices can be situated not only in Tokyo Metropolitan Area but also in local cities.</td>
<td>dispersed not only in Tokyo Metropolitan Area but also in local cities</td>
<td></td>
</tr>
<tr>
<td>All the headquarters functions</td>
<td>Large corporate headquarters which internalized most of the support services (engineering, marketing, accounting, and security transactions.</td>
<td>Makuhari [4 companies]</td>
<td>5</td>
</tr>
<tr>
<td>Banks, insurance companies</td>
<td>Routine, standardized work offices involved in the processing of payrolls, insurance claims, bank checks, and security transactions.</td>
<td>Tama N.T. [4 companies]</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chiba N.T. [3 companies]</td>
<td>6</td>
</tr>
</tbody>
</table>

Data source: NIKKEI "NEEDS-IR" information service
Notes

<1>
As I indicated in the previous sentence, what I mean by "job-housing balance" consists of the following factors.

(1) One-way commuting time of workers is less than an hour.
(2) Housing price is less than five times of workers' annual income.

This definition may seem arbitrary, but the following data might help the reasonableness of the definition.

As for (1)
As the Figure-20 shows, the majority of people think that" reasonable" commuting time should be less than an hour. The proportion of people who are willing to accept commuting time more than an hour is only 25 percent.
On the other hand, Figure-2 shows that, in 1985, more than a half of workers surveyed consumes more than one hour for one-way commuting.

As for (2)
As I will discuss in Chapter 3 ("Land Issues"), there is a study of housing affordability done by Michihiro Hanagata, a senior director of Urban Development Association. According to his study, in the past from 1972 to 1983, when many workers were able to own housing, proportion of purchase of housing substantially increased when average housing price was less than five times of average annual income of workers. Presently it is above eight times.
So far, two problems were raised; job-housing imbalance, and high land prices. The main objective of this thesis is to analyze a way by which job-housing balance is expected to be restored. However, it is difficult to analyze the way without referring to high land prices. Therefore, in Chapter 3, I will discuss land issues in some detail.

Before the establishment of the present National Capital Region Planning System, there were several revisions during the past forty years. The Capital Construction Law, whose objective was to rebuild Tokyo which had been destroyed by World War 2, was the origin.

After that, the National Capital Region Arrangement Law, which was established in 1956, decided the structure of the National Capital Region Planning System(s) which followed afterwards. The National Capital Region Arrangement Law decided to make 23 wards of Tokyo and the suburban areas which had strong relationship with 23 wards both economically and socially as the target region; all the areas of Tokyo Metropolis, Kanagawa Prefecture, Saitama Prefecture, Chiba Prefecture, and part of the areas of Ibaragi Prefecture, Tochigi Prefecture, Gunma Prefecture, and Yamanashi Prefecture [Figure-1].

The National Capital Region Planning System consists of two factors. The first one is that the National Capital Region is classified into three areas; Commercial and Business Area, Suburban Adjustment Area, and Economic Development Area. In each Area, (1) a guideline of land use, (2) regulation or incentive of construction of factories and universities, and (3) tax measures and grant
systems are provided. These systems/measures/guidelines are not part of the National Capital Region Planning System, rather the systems/measures/guidelines make use of the "classification of the three areas". Factory Regulation Law, for example, restricts new, and expansion of, construction of factories in Commercial and Business Area. On the other hand, Factory Reallocation Promotion law has beneficial treatment when one relocate one's factory from Commercial and Business Area to economic Development Area by reducing Capital Gains Tax and approving Accelerated Depreciation System based on Special Taxation Measures Law.

The other one is to publicize concepts and plans about arrangement of large-scale infrastructure such as railroads, expressways, large-scale sites for housing and factory construction, sewerage systems, and regional parks.

In case of National Capital Region Central Expressway, the first loop expressway in the National capital Region, for example, the plan of the loop expressway was originally publicized by the National Capital Region Planning System in 1981, followed by City Planning Decision (this means legal approval of the plan by prefectures concerned) during 1986 and 1989. Ministry of Construction and Japan Road Construction Corporation are to construct the loop expressway when fund raising and environmental assessment are finished.

<4>

For reference, I extract some of the concepts of the latest National Capital Region Planning System, which refers to suburbanization ("Business-Core City" concept)

(a) Planning term: 1986-2001

(b) Every region in the National Capital Region should, by taking a share of necessary function and
communicating with other regions, form regional structure suitable for the metropolis.

(c) Readjustment of the single-polar concentration structure is important in order to solve such problems as housing shortages, traffic congestion, environmental deterioration and danger from disasters.

(d) In order to adjust the single-polar concentration structure, multi-polar and multi-region structure is necessary in the National Capital Region.

(e) By nourishing Business-Core cities, self-support regions should be formed in order to attain job-housing vicinity.

(f) Arrangement of networks of transportation and tele-communication is necessary.

(g) It is necessary to rearrange some government-related establishments that presently exist in the center of Tokyo.

<5>

As for this issue, I will argue in detail in Chapter 6, Section A and Chapter 7, Section B and C.

<6>

Reform of the tax law concerning the treatment of farmland in Urban Area in all the municipalities in the National Capital Region:

The law requires that farmland owners in Urban Area must, by the end of 1992, decide either to continue agriculture for a long time (30 years) or to change the farmland to building land. As I already mentioned before, tax system of farmland is much more favorable to farmland than to building land, both in property tax and inheritance tax. The treatment allowed the farmland owner to restrain the supply of building land more than the extent by which
farmland should be conserved.

The reform of the tax system is a kind of "compromise between city planning and agriculture", positioning the farmland in Urban Area as "Production Green Tract" in a master plan while making it difficult to continue to hold farmland only for the purpose of property holding (that is to say, appreciation of the value of the land).

As for the impact of the reform, it is expected that, assuming that 50 percent of the farmland is changed to building sites, 16,500 hectares (41,250 acres) of building sites will be supplied in the National Capital Region. I think some adjustments, including adjustment of master plans, of urban policy of municiparities are necessary in order to mitigate the disparity between the future land use and the city planning.

Outline of the reform of the tax law:

(a) Positioning of farmland in Urban Area in city planning:

\[
\begin{array}{|c|c|}
\hline
\text{farmland in Urban Area} & \text{farmland which will be changed to building land} \\
\hline
\text{farmland which will not be changed} & \text{planned promotion of building land} \\
\hline
\text{farmland which will be conserved} & \text{zoned as Production Green Tract} \\
\hline
\text{zoned as Urban Control Area} & \\
\hline
\end{array}
\]

(b) Classification of farmland:

By the end of 1992, present farmland in Urban Area will be classified either "farmland which will be changed to building land" or "farmland which will be conserved". The latter will be zoned to either Production Green Tract or Urban Control Area.
(c) Tax system:

Farmland which will be changed to building land:
Treatment of both property tax and inheritance tax will be the same as that of building land.

Farmland which will be conserved (Production Green Tract):
Treatment of property tax will be the same as farmland. Inheritance tax will be deferred on condition that the heir/heirness will continue agriculture until the death of the heir/heirness.

(d) What is Production Green Area?

Purpose:
Positioning farmland as "green function" in Urban Area in a master plan

Regulation:
Unavailable for housing and offices

Purchase:
After the 30-year future or the death of the farmer, the landowner has the claim that the mayor should purchase the farmland at the market price.

<7>

Housing and Urban Development Corporation, local municipalities and prefectures developed new towns such as Tama New Town (2,648 hectares), Kohoku New Town (1,317 hectares), and Chiba New Town (1,933 hectares) by using New Residential Area Development Method (the Method includes condemnation) and Land Readjustment Method (the Method does not include condemnation).
Property replacement from the Central Commercial and Business Area to other areas
b) Property replacement from areas other than the Industrial Park Development Site to the Site
c) Property replacement from areas other than Economic Development Area to the Area

As for the aforesaid transactions, the capital gains tax is deferred (Special Taxation Measures Law, Article 37 and 65-7).

Tokyo Bay Waterfront Development Plan, including 110,000 planned office workers and 60,000 planned residents, was originally planned and announced by Tokyo Metropolitan Government in 1988. It is located at five km distance from the center of Tokyo.

7,000 units / [expected annual increase in household in the Tokyo Metropolitan Area ]
= 7,000 / [ 30,273,178 * 0.012 / 3.01 ]
    (1)     (2)     (3)

= 0.06
    (1) population in 1985
    (2) annual increase rate
    (3) number of people in a household

Japanese corporations often help provide the workers' housing as one of the corporate welfare system; providing
rental housing owned or leased by the corporations, or paying the part of the rent of the workers' housing.

<12>
As for this issue, I have already discussed in Chapter 5.

<13>
The unnecessary competition among the prefectures (and a metropolis) might lead to overconsumption of public funds for arrangement of infrastructure and some "attractive" facilities, part of which result in no contribution to attract companies from the center of Tokyo. As for the competition, I will discuss in Chapter 7.

<14>
As I already mentioned, a municipality is expected by developers and people living in the municipality to cope with many roles in the development process: for a developer, a municipality is the first party and their relationship substantially goes on in most of the development process [Figure-14]; for people living in the municipality, they expect that the municipality will manage local resources, residential environment, and farmland, in addition to economic development. In this sense, a municipality has power based on the expectation and support of the developer and the people. However, as I showed in Figure-14-1, 14-2, and 14-3, a municipality does not have much power neither financially [Figure-14-2, 14-3] and legally [Figure-14-1].
1. Prefectures

Before the amendment of Prefecture System in 1946 and the enactment of Local Self-Governing Law in 1947, under the new Constitution, a prefecture was only an administrative division of national government, and national government appointed the prefectural governors. Through the amendment and the enactment, residents in the prefecture got the right to elect their governor. In addition, prefectures became comprehensive self-governing entities to cope with various works including adjustment (inter-municipal and inter-ministerial) works.

2. City Planning Code

(1) Background

The City Planning Code enacted in 1919 ordered that the City Planning power belonged to the national government. The reform of the Code in 1968 is very important in that the power was transferred to prefectural governments and municipalities. Presently, twenty three years after the reform, transfer of City Planning power is again an issue; decentralization of the power to municipalities could help solve the problem (= too much concentration in central Tokyo), and twenty-three year accumulation of administration experience of municipalities concerning city planning is enough to support the opinion that the power should be decentralized.

(2) Discussions by "Workshop of the City Planning Institute of Japan, 11/19/'89:

In the Workshop, there were many discussions as to whether or transferring the City Planning powers to municipalities was necessary. In the workshop, there was no definite conclusion, but it was agreed that the following issues should be considered.
"In city planning matters, there are many things which have strong relations to other Ministries' (i.e., Ministries other than Ministry of Construction) basic policy. Adjustment of urban land use and farmland is an example, which needs the adjustment of Ministry of Construction and Ministry of Agriculture, Forestry and Fisheries. In the present situation, prefectures have the major role to adjust the inter-Ministry policies. In case of transferring the power to municipalities, a new adjustment system is necessary. However, it is difficult to propose the new system."

16

In the second stage, when manufacturing industries were dominant, many factories were built in the suburbs of the National capital region. As I mentioned earlier, the national Capital Region Planning System promoted the suburbanization of factories.

17

As for Makuhari development, I have already discussed in Chapter 6, Section B.