

## A REVIEW OF RECENT POPULATION CHANGES IN JAPAN\*

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### I *Introduction*

It is frequently pointed out that Japanese society is now facing a major turning point in terms of the economy and people's lifestyle that characterized the postwar Japanese social structure (Economic Planning Agency, 1983, pp. 4-9).

First, basic economic conditions have been transformed from 'high' economic growth to 'low' and 'stabilized' growth. This change can be attributed to many factors, including the oil shocks, which directly hit Japan during the period of highpaced economic growth. At the same time, many industries that accounted for the post-war economic growth have reached a 'matured' stage and have lost their power to drive the Japanese economy. The industrial structure has shifted from the heavy and chemical industries to the knowledge-intensive and service-oriented industries (Economic Planning Agency, 1982, pp. 96-99).

Second, the Japanese population is expected to have one of the world's most aged structure (Management and Coordination Agency, 1984). Birth rates have declined since the sharp drop following the baby boom of 1945-1950, and Japanese population growth will continue to slow down in the coming years. This aging of society effects on the economy in two ways; the shrinkage in labor supply of young adults who are thought to be most adaptable to technical changes will continue, and the vast accumulation of aged population addresses a serious problem of how to guarantee employment and support for them (Population Problem Council, 1984). Generally speaking, the vitality of society as a whole will be reduced if these problems are not solved.

Third, with the advent of an affluent society, people's lifestyles have been changed and diversified. Japan has endeavored to expand its economic activity and improve its efficiency in order to achieve material affluence. The national goal of catching up with the advanced Western countries has been attained and no single political and economic goal is adequate to sufficiently motivate the Japanese people. In the rush toward an affluent society, Japan has lost its sense of direction and various conflicting values have merged (National Land Agency, 1984, pp. 48-56).

The purpose of this analysis is to consider one of the aspects of these changes; the economic situation of a region heavily dependent on a structurally depressed industry and its revitalization. We will take Kamaishi City as a case study. Located in Iwate Prefecture, Kamaishi City has been dependent on a steel factory, the Kamaishi Factory of Shin-Nippon Steel Corporation. For reasons of space restrictions this paper has been divided into two sections. This section, constituting the first half of the analysis, addresses a preliminary

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\* This research was partially supported by a Grant-in-Aid for research of the Ministry of Education, No. 60539924, and Shakai Keizai Kokumin Kaigi (Social and Economic Congress of Japan). The author is grateful to Mr. Ronald M. Siani for his proof reading of this paper.

consideration on this matter. Various recent trends in population changes in Japan are presented in order to clarify one of the aspects of the fundamental socio-economic changes mentioned above. After describing these changes, we will analyse conditions in Kamaishi city and try to determine a feasible course for its revitalization in the second section of this paper, which will be forthcoming. An investigation of new ideas concerning 'localism' will be made to point out possible directions that this local economy may take in order to reverse the economic decline.

## II *Changes in Population Distribution*

### 1 Urban Concentration of Population

The gravitation of population to the cities in Japan has a long history reaching back to the closing years of the 19th century when Japanese industrialization began. This concentration of population in the cities has continued to the present days. As World War II increased its intensity, however, the evacuation of the population from the major cities began, and the ratio of city population to the total population suffered a decline (M. Ueda, 1975, p. 41).

Following defeat, Japan was occupied by the Allied Forces which took the position that they bore no responsibility for the reconstruction of the Japanese economy (T. Nakamura, 1981, p. 30). However, as early as 1947, with the deepening of the Cold War, the Allied Forces—in reality the American Forces—began to emphasize the economic recovery of Japan (E.O. Reischauer and A.M. Craig, 1978, pp. 284–285). In the 1950s Japan's economy

TABLE 1. POPULATION OF CITIES, TOWNS AND VILLAGES

Year	Number of Cities	Percent of Total Population		Percent of Land Area	
		City	Town and Village	City	Town and Village
1950	254	37.3	62.7	5.3	94.7
55	496	56.1	43.9	18.0	81.6
60	561	63.3	36.7	22.0	77.6
65	567	67.9	32.1	23.5	76.1
70	588	72.1	27.9	25.3	74.4
75	644	75.9	24.1	27.1	72.6
80	647	76.2	23.8	27.2	72.5
85	652	76.7	23.3	27.3	72.4

Source: Statistics Bureau, Management and Coordination Agency, *Major Aspects of Population of Japan*, 1986, p. 23.

TABLE 3. POPULATION OF THESE MAJOR AREAS WITHIN A 50-KILOMETER RANGE

Area	Population (1,000)						Percent of Total Japa-		
	1960	1965	1970	1975	1980	1985	1960	1965	1970
Tokyo	15,788	18,908	21,953	24,761	26,343	27,824	16.7	19.1	21.0
Osaka	10,323	12,054	13,640	14,880	15,422	15,891	10.9	12.2	13.0
Nagoya	5,392	6,096	6,774	7,430	7,828	8,138	5.7	6.1	6.5
Total	31,503	37,057	42,367	47,071	49,593	51,854	33.4	37.4	40.5

Source: Statistics Bureau, Management and Coordination Agency, *Major Aspects of Population of Japan*, (1985 Population Census of Japan, Abridged Report Series, No. 1.), 1987, p. 35.

TABLE 2. POPULATION INCREASE OF CITIES BY POPULATION SIZE (%)

Population Size	1960-65	1965-70	1970-75	1975-1980	1980-1985
Total	9.9	8.7	8.7	4.8	3.7
Over 1,000,000	9.1	3.2	2.5	0.1	2.5
500,000~1,000,000	24.6	14.1	14.9	6.2	3.5
300,000~500,000	13.9	13.1	13.6	7.4	4.6
200,000~300,000	14.8	17.3	12.6	7.6	4.5
100,000~200,000	16.9	15.0	12.7	7.0	4.9
50,000~100,000	7.8	10.6	11.9	7.4	5.1
30,000~50,000	{ $\Delta$ 1.7	0.3	4.7	2.9	1.3
Less than 30,000		$\Delta$ 8.5	$\Delta$ 5.4	$\Delta$ 1.8	$\Delta$ 2.1

Source: 1960-65: Bureau of Statistics, Office of the Prime Minister, *Population of Japan, (1970 Population Census of Japan, Abridged Report Series No. 1.)*, 1972, p. 9.

1965-1985: Bureau of Statistics, Management and Coordination Agency, *Major Aspects of Population of Japan, (1985 Population Census of Japan, Abridged Report Series, No. 1.)*, 1986, p. 23.

and society attempted to regain prewar levels with the goal of attaining economic self-dependence and of building the foundation for future economic development. As postwar reconstruction advanced, people gradually returned to the cities. According to Table 1, which shows the movement to urban areas, the population in cities increased to 56 percent of the total population by 1955. This great change can be attributed mainly to the enactment of the "Town and Village Merger Encouragement Law." The promotion of mergers of towns and villages resulted in the expansion of city areas and city populations. Strictly speaking, cities which were formed after 1950 were mostly small in size, and included agricultural areas within the municipal administrative boundaries. Hence it is misleading to think the entire population of these cities as urban in nature (M. Ueda, p. 42).

In the 1960s Japan's energy was directed toward high economic growth, which resulted in an impressive improvement in per capita income. The intensive concentration of population in large cities accelerated, but various strains resulting from rapid industrial expansion and the over-concentration of population in major cities began to exceed the ability of these cities to cope with the resulting problems.

If we look at the population increase of cities by population size, until around 1960 population increase was highest in cities with a population of over one million, but 1960 this increase declined gradually as showed in Table 2.

In conjunction with the relative decline in the increase of population in major large cities, the districts adjacent to major cities recorded high population increases. Table 3 exhibits the changes of population in three major areas within a 50-kilometer range from the Tokyo Metropolitan government office, and the Osaka and Aichi prefectural government offices.

#### FROM TOKYO, OSAKA, AND NAGOYA

Population (%)			Population Increase Rate (%)				
1975	1980	1985	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985
22.1	22.5	23.0	19.7	15.9	12.7	6.4	5.6
13.3	13.2	13.1	16.9	13.0	9.1	3.6	3.0
6.6	6.7	6.7	12.9	11.1	9.7	5.4	4.0
42.0	42.4	42.8	17.6	14.2	11.1	5.4	4.6

TABLE 4. INCREASE RATE OF POPULATION BY PREFECTURE

Prefecture	(%)						
	1950~1955	1955~1960	1960~1965	1965~1970	1970~1975	1975~1980	1980~1985
Total	7.1	4.7	5.2	5.5	7.0	4.6	3.4
Hokkaido	11.1	5.6	2.6	0.2	3.0	4.5	1.9
Aomori	7.8	3.2	△0.7	0.8	2.9	3.8	0.0
Iwate	6.0	1.5	△2.6	△2.8	1.0	2.6	0.8
Miyagi	3.8	0.9	0.6	3.8	7.5	6.5	4.5
Akita	3.0	△1.0	△4.2	△3.0	△0.7	2.0	△0.2
Yamagata	△0.3	△2.4	△4.4	△3.0	△0.4	2.6	0.8
Fukushima	1.6	△2.1	△3.3	△1.9	1.3	3.3	2.2
Ibaragi	1.2	△0.8	0.4	4.3	9.3	9.2	6.5
Tochigi	△0.2	△2.0	0.5	3.9	7.5	5.5	4.1
Gunma	0.8	△2.3	1.7	3.3	5.9	5.2	3.9
Saitama	5.4	7.5	24.0	28.2	24.7	12.4	8.2
Chiba	3.1	4.6	17.2	24.6	23.2	14.1	8.7
Tokyo	28.0	20.5	12.2	5.0	2.3	△0.5	1.8
Kanagawa	17.4	17.9	28.7	23.5	16.9	8.2	7.3
Niigata	0.5	△1.3	△1.8	△1.6	1.3	2.5	1.1
Toyama	1.2	1.1	△0.7	0.4	4.0	3.1	1.4
Ishikawa	0.9	0.7	0.7	2.2	6.7	4.6	3.0
Fukui	0.2	△0.0	△0.3	△0.8	3.9	2.7	2.9
Yamanashi	△0.5	△3.1	△2.4	△0.2	2.8	2.7	3.6
Nagano	△1.9	△1.9	△1.2	△0.1	3.1	3.3	2.5
Gifu	2.6	3.3	3.8	3.4	6.2	4.9	3.5
Shizuoka	7.2	4.0	5.7	6.1	7.1	4.2	3.7
Aichi	11.1	11.6	14.1	12.2	10.0	5.0	3.8
Mie	1.7	△0.0	2.0	1.9	5.4	3.7	3.6
Shiga	△0.9	△1.3	1.3	4.3	10.8	9.6	7.0
Kyoto	5.6	3.1	5.5	7.0	7.8	4.2	2.3
Osaka	19.7	19.2	20.9	14.5	8.6	2.3	2.3
Hyogo	9.4	7.9	10.3	8.3	6.9	3.1	2.6
Nara	1.7	0.5	5.7	12.6	15.8	12.2	7.9
Wakayama	2.5	△0.5	2.5	1.5	2.8	1.4	0.0
Tottori	2.3	△2.5	△3.2	△1.9	2.2	3.9	2.0
Shimane	1.8	△4.3	△7.6	△5.8	△0.6	2.1	1.3
Okayama	1.7	△1.1	△1.4	3.8	6.3	3.1	2.5
Hiroshima	3.2	1.6	4.4	6.8	8.6	3.5	2.9
Yamaguchi	4.5	△0.5	△3.7	△2.1	2.9	2.0	0.9
Tokushima	△0.0	△3.5	△3.8	△2.9	1.8	2.5	1.2
Kagawa	△0.2	△2.6	△2.0	0.8	5.9	4.0	2.3
Ehime	1.2	△2.6	△3.6	△2.0	3.3	2.8	1.5
Kochi	1.0	△3.2	△4.9	△3.2	2.7	2.8	1.0
Fukuoka	9.3	3.8	△1.0	1.6	6.6	6.1	3.6
Saga	3.0	△3.2	△7.5	△3.8	△0.1	3.3	1.7
Nagasaki	6.2	0.7	△6.8	△4.3	0.1	1.2	0.2
Kumamoto	3.7	△2.1	△4.6	△4.0	0.9	4.4	2.6
Oita	1.9	△2.9	△4.2	△2.7	3.0	3.2	1.7
Miyazaki	4.4	△0.4	△4.8	△2.7	3.2	6.1	2.1
Kagoshima	1.8	△4.0	△5.6	△6.7	△0.3	3.5	1.9
Okinawa	14.6	10.2	5.8	1.2	10.3	6.1	6.6

Source: Same as Table 4, p. 17.

These areas, which occupy only 5.9 percent of the total land area of Japan, accounted for 42.6 percent of the total population of Japan in 1986. At the same time, we must point out the diminishing increase of population growth in these three major areas.

## 2 Local Population Changes and Regional Development Policies

As mentioned above, Japanese population has been concentrated in major industrial and commercial centers and their surrounding areas. This resulted in Japan being divided into two distinct districts; overpopulated districts on the one hand and depopulated ones on the other hand.

The driving forces for the growth of cities in any country can be summarized as follows; economies deriving from specialization, external economies generated by the increased specialization, economies accruing from agglomeration, and economies produced by the provision of infrastructure and social overhead capital in the urbanized areas (M. Yorimitsu, 1986, p. 29). As exhibited in Table 4, the period from 1960 to 1965 marked the peak in the disparity in population growth of the prefectures. The contrast between prefectures with population increase and those losing population was quite clear. Overpopulated areas, however, began to suffer from both internal and external diseconomy.

Japanese governmental policies took steps to redistribute industries and population by using measures to promote the relocation of industries from the highly congested areas, and to improve living conditions in local areas.

It is necessary at this point to turn our attention to this shift in regional development policies which were framed in response to the restrictions imposed by the national and international socio-economic conditions. Japanese regional development policies have passed through several stages under the authority of the "National Land Comprehensive Development Law" enacted in 1950.

The first stage of these development policies was the era of the Plan for the Comprehensive Development of Special Regions. In the twenty one regions designated as special regions, strong emphasis was placed on the conservation of national land, such as forests and rivers, as well as the development of power resources (S. Okita, 1967, p. 20). The goal of utilizing the construction of multi-purpose dams as a driving force for regional development of river basins, following the model of the T.V.A., was not successful, and most of the electric power generated by these dams was supplied to the major industrial cities to assist their economic activities. Furthermore, with the outbreak of the Korean War, the target of development policies shifted from comprehensive regional development to industrial development; the improvement of existing industrial districts and the construction of new industrial bases.

In the mean time, the older established industrial districts were confronted with a series of problems which blocked further expansion, such as the lack of adequate industrial sites, water supply, and transportation. The regional development policies then entered the second stage. In 1962 Zenkoku Sougou Kaihatsu Keikaku (National Plan for Comprehensive Development) was adopted by the government with the goal of dispersing heavy and chemical industries to new industrial sites. This dispersion of industries was designed to address two problems simultaneously; to mitigate the abuses caused by the overcrowded cities and industrial centers and to restore the balance between developed and under-developed regions within Japan. Fifteen regions were designated as "New Industrial Cities" and six regions were designated as "Special Districts for Industrial Adjustment" (K. Murata

and Y. Shimizu, pp. 34–37). A characteristic of these plans was that almost all of the districts were located in the coastal zones and the construction of the industrial complex was centered around heavy and chemical industries.

Although there is no single explanation for Japan's growth in the early postwar decades, it is no exaggeration to say that the regional development policies contributed greatly to the high postwar economic growth. However, an evaluation of the results of this plan shows mixed results. In terms of the production of industrial products, the plan almost achieved its objectives. But in terms of investments for housing, water supplies and sewers, educational and welfare facilities, and public parks, the results were much poorer. Furthermore, the start-up of operations of newly-built factories immediately resulted in environmental pollution. High economic growth was attained at the cost of a deterioration in the quality of life. Capital and labor were concentrated in the Pacific Ocean belt zone and many towns and villages were faced with depopulation and the decline of local industries.

Shin Zenkoku Sougou Kaihatsu Keikaku (New National Plan for Comprehensive Development) was framed in 1968 to reorganize the utilization of national land in order to simultaneously resolve the problems of overcrowding and depopulation. One of the major goals of regional development policies had been the alleviation of the existing disparity between regions. Shin Zenkoku Sougou Kaihatsu Keikaku (New National Plan for Comprehensive Development) reduced the emphasis on this traditional orientation by proposing measures to promote the functional division of national lands; the concentration of administrative functions in metropolitan cities, and the creation of large-scale industrial development projects. With the construction of new national transportation and communication networks this plan attempted to combine these functions more efficiently. The plan further aimed to improve the quality of life of the people in these areas.

The reaction to this plan was not favourable. The attitude of residents to the environmental disruptions became severe, and movements protesting the promotion of large industrial projects spread quickly throughout Japan. Policies which placed priorities on industrial development and industrial policies which promoted basic resource industries, such as oil refining and iron and steel, were called into question and re-examined.

The Japanese government stepped in and adopted the Dai Sanji Zenkoku Sougou Kaihatsu Keikaku (Third National Plan for Comprehensive Development) in 1977. This plan proposed a new concept, "Teijuu-ken," which aimed at encouraging more people to settle rural regions. The creation of job opportunities and the preparation of attractive residential areas were formulated as the basic direction of development policy. It can readily be seen that the "Teijuu-ken" concept was one of the results of the reconsideration of the policies of postwar high economic growth. However, the dispersal of industries to local areas, which was of prime importance in regard to increasing employment in local areas, did not advance as expected. Socio-economic changes, such as changes in the industrial structure, age structure of the population, the population changes at the prefectural level, and people's life-styles, and sense of values, gathered momentum. These real changes exceeded the ability of the third plan.

In 1981 planning began on the Dai Yoji Zenkoku Sougou Kaihatsu Keikaku (Fourth National Plan for Comprehensive Development). The preparation of the fourth plan is in a final stage at the time this paper is being written. The National Land Council released a report on the progress of deliberations of the Fourth National Plan for Comprehensive

Development in December 1986 (National Land Council, 1986). This report occasioned a severe dispute over the guidelines for development policy, especially over the proposed redevelopment of the Tokyo Metropolitan area. A final decision is expected to be reached after the disputes are resolved.

In spite of the differences in approach in framing development policy, these plans have consistently sought measures to diminish regional disparities in terms of population, income, and employment. Table 5 shows the coefficient variation of population growth rates of pre-

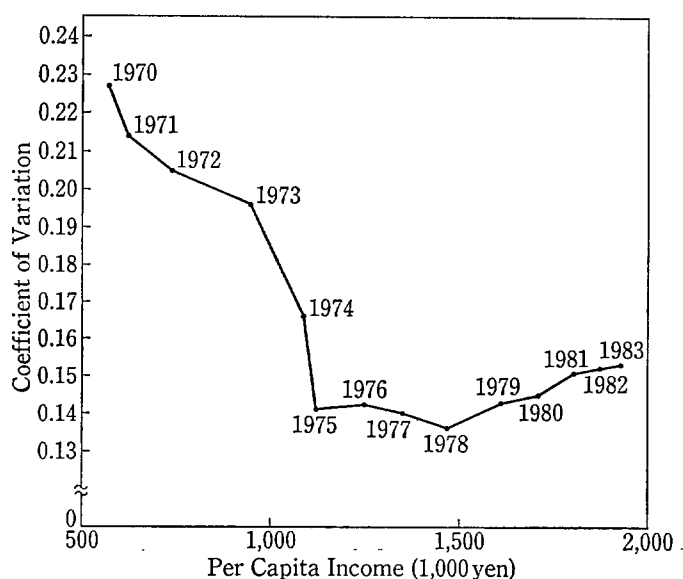
TABLE 5. COEFFICIENT OF VARIATION OF PREFECTURAL POPULATION GROWTH RATES

Period	Coefficient of Variation
1950-1955	1.30
1955-1960	3.54
1960-1965	4.47
1965-1970	2.70
1970-1975	0.98
1975-1980	0.66
1980-1985	0.84

Source: Same as Table 4.

Note: Coefficient of Variation =  $\frac{\text{Standard Deviation}}{\text{Average}}$

FIG. 1. COEFFICIENT OF VARIATION OF PREFECTURAL PER CAPITA INCOME (1970-1983)



Source: 1970 to 1974: Economic Research Institute, Economic Planning Agency, *Kenmin Shotoku Toukei Nenpou*, 1979, 1979, pp. 40-41.  
1975 to 1983: Economic Research Institute, Economic Planning Agency, *Kenmin Keizai Nenpou*, 1986, 1986, pp. 28-29.

fectures based on the data of Table 4. This clearly shows that the differential of population growth rates between prefectures declined sharply after the period of differential expansion. This change of coefficient variation suggests that regional disparities in population growth have diminished greatly since the middle of the 1960s.

Although regional disparity in per capita income has been greatly reduced during the 1970s, as shown in Figure 1, regional economies are still heavily dependent on financial assistance from the central government and their economic base remains vulnerable. In the 1980s, administrative and fiscal reforms were particularly emphasized in government policies, and fiscal restrictions have imposed a heavy burden on local economies. In fact, the improvement of regional income disparity was reversed in the 1980s. All illustrated in Figure 1, the coefficient of variation of per capital income of prefectural citizens began to rise from 1978 after the sharp decline of the coefficient of variation since 1970. This fact indicates the recent worsening position of local economies.

### III *Internal Migration*

#### 1 Overview from Population Census Data

With the decline in birth rates and the reduction of rural and urban deviations in birth rates (See Table 6), internal migration came to be the major determinant of population growth in each region.

If we look at the prefectural population data as revealed in the Population Census of Japan, striking changes occurred in the rates of population increase and the components of those rates; natural increase rates and social increase rates. Figure 2 shows three types of increase rates by prefecture in two periods, 1960–1965 and 1980–1985. The marked trends are listed below:

- (a) The differential of population increase rates by prefecture diminished between the two periods.
- (b) While the number of prefectures losing population was counted 25 in the period 1960–1965, only one prefecture lost population in the period 1980–1985, showing a slight decrease in rate.
- (c) The level of natural increase rates of the prefectures was lowered, and the deviation of these rates between prefectures dwindled during the two periods.
- (d) Together with the lowering in the number of prefectures recording social decrease rates,

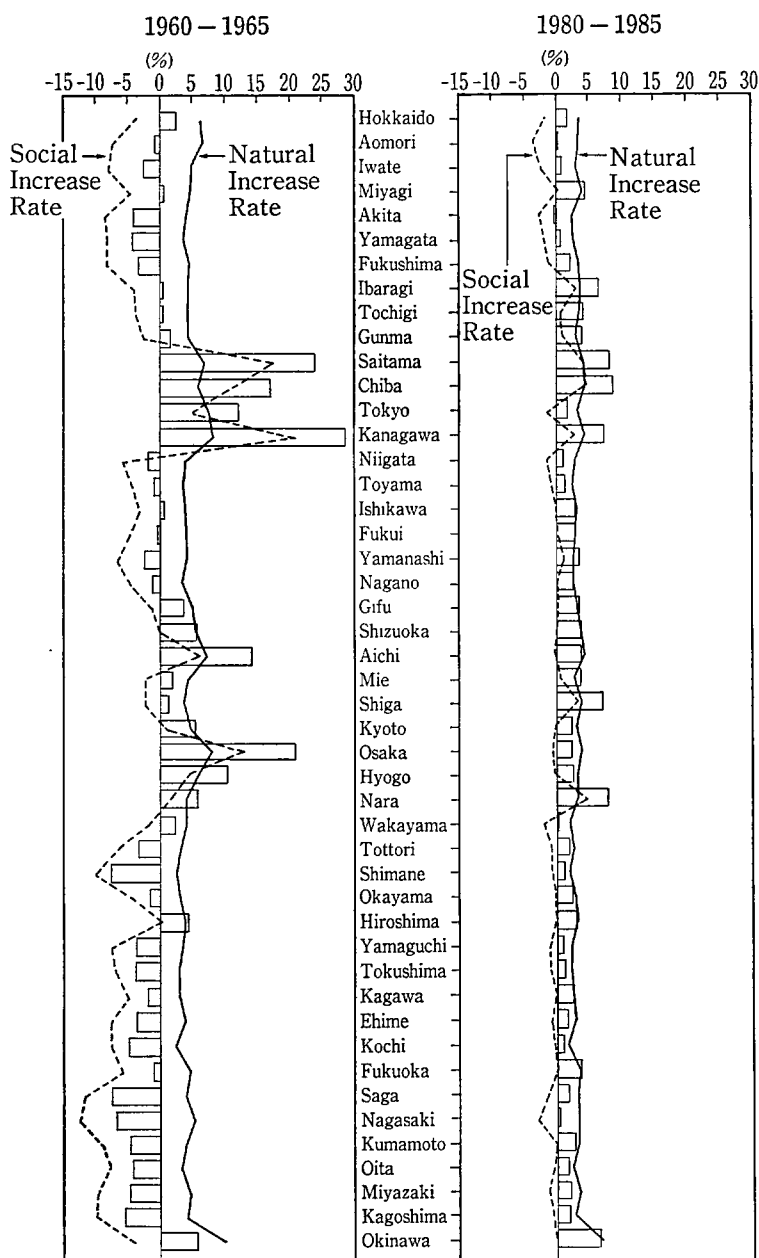
TABLE 6. VITAL RATES FOR URBAN AND RURAL AREAS  
(Rate per 1,000 population)

Year	Birth Rate			Mortality Rate			Natural Increase Rate		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
1930	32.4	26.5	34.2	18.2	16.5	18.7	14.2	10.0	15.5
1950	28.1	25.6	29.6	10.9	9.2	11.9	17.2	16.4	17.7
1960	17.2	17.1	17.4	7.6	6.8	8.8	9.6	10.3	8.6
1970	18.8	19.7	15.9	6.9	6.1	8.9	11.9	13.6	7.0

Source: M. Ueda, *Population Problems in Japan*, (International Society for Educational Information, 1975), p. 48.



FIG. 2. POPULATION INCREASE, NATURAL INCREASE, AND SOCIAL INCREASE BY PREFECTURE, 1960-1965, 1980-1985



Source: Statistics Bureau, Management and Coordination Agency, 1985 *Population Census of Japan, Preliminary Counts of the Population on the Basis of Summary Sheets*, 1985, p. 16.

the standard of social decrease rates was reduced dramatically.

(e) The level of social increase rates was depressed between the two periods. For example, while the rates of social increase of Kanagawa Prefecture and Saitama Prefecture were 20.6% and 17.3%, respectively, during the period 1960–1965, these rates dropped to 3.2% and 4.0%, respectively, during the period 1980–1985. These prefectures showed the highest rate of social increases in Japan.

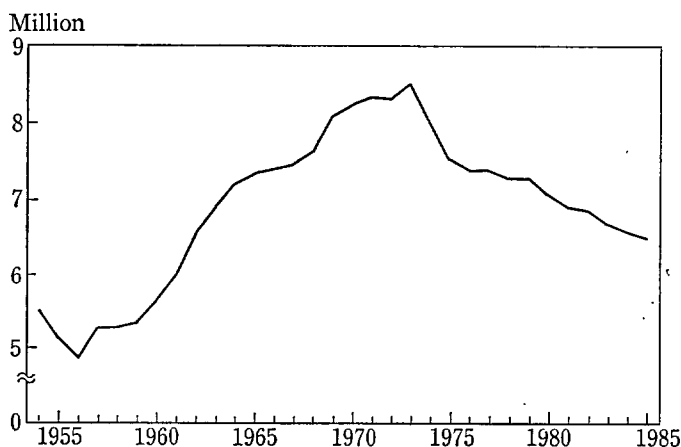
The social increase rates exhibited in Figure 2 were obtained by comparing population increase and natural increase during each five-year period. The data reflects the trends in net inter-prefectural migration at five year intervals.

## 2 Changes in Inter-prefectural Migration

Since 1954 migration data based on the Basic Resident Registers has been available on a yearly basis. It is necessary at this point to mention the nature of this data. The Basic Resident Registers contain data on Japanese migrants who have moved across municipal boundaries during a fiscal year. People who moved within the same municipality are not counted, while people who moved between municipalities several times within a year are counted on each occasion (Management and Coordination Agency, 1986, p. 4). In spite of statistical reporting defects, data based on the Basic Resident Registers are the most comprehensive and reliable source available.

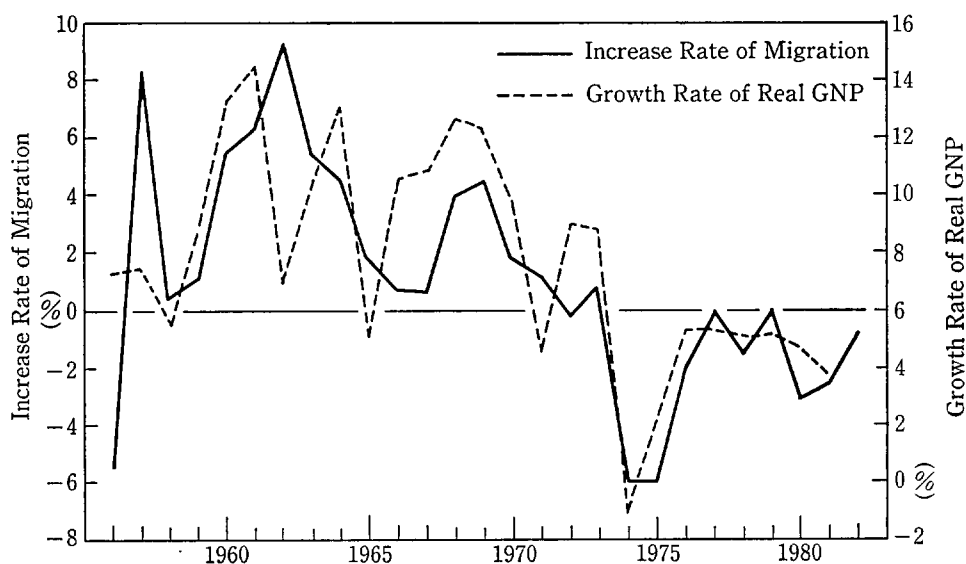
According to Figure 3, which shows the number of total migrants, there was a striking change in the trend of internal migration around the year 1973. During the 1960s the population flow from rural districts to the industrial and commercial areas accelerated, and the number of people moving increased from 5,652,000 in 1960 to 8,537,000 in 1973. The number suddenly began to decrease in 1974 and the diminishing trend has not been reversed. This change was found in both inter-prefectural and intra-prefectural migration. The shrinkage of movers since 1974 suggests a change in people's attitudes toward their residences. It should be pointed out that there is a close relationship between migration and economic

FIG. 3. TOTAL NUMBER OF MIGRANTS, 1954–1985



Source: Statistics Bureau, Management and Coordination Agency, *Annual Report on the Internal Migration in Japan*, delivered from the Basic Resident Registers, 1985, 1986, p. 5.

FIG. 4. MIGRATION AND ECONOMIC GROWTH (1956-1983)



Source: Office of Prime Minister, 1984, p. 14.

growth: the higher the rate of economic growth, the greater the number of migrants. We agree with the opinion that high economic growth stimulates people to migrate to more prosperous areas in order to improve their economic livelihood. But this argument can not explain the continuing diminishing trend of migration since the middle of the 1970s.

The migration rates shown in Table 7 shed light on two facts: the decline of migration rates had already begun in 1970, and the weight of inter-prefectural migration to total migration decreased slightly following the stable trends in the 1960s. The latter findings indicates the greater importance of short-distance migration.

The trends of net migration of each prefecture from 1955 to 1985 can be classified into five groups:

- (A) Prefectures continuing to show a net gain; Saitama, Kanagawa,
- (B) Prefectures continuing to show a net loss; Aomori, Iwate, Akita, Yamagata, Fukushima, Niigata, Toyama, Fukui, Wakayama, Shimane, Yamaguchi, Tokushima, Ehime, Saga, Nagasaki,
- (C) Prefectures which showed a change from net gain to net loss; Osaka, Hyogo,
- (D) Prefectures which showed a change from net loss to net gain; Ibaraki, Chiba, Yamaguchi, Shiga, Nara,
- (E) Prefectures which showed a repeated change between gain and loss; Hokkaido, Miyagi, Tochigi, Gunma, Tokyo, Ishikawa, Nagano, Gifu, Shizuoka, Aichi, Mie, Kyoto, Tottori, Okayama, Hiroshima, Kagawa, Kochi, Fukuoka, Kumamoto, Oita, Miyazaki, Kagoshima, Okinawa.

Figure 5 illustrates the changes of migration rates of five typical prefectures representing the above five groups. Let us consider the differences between each group.

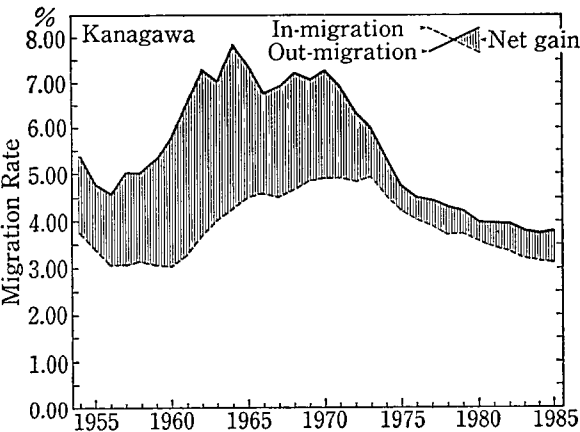
TABLE 7. MIGRATION RATES, 1960-1985

Year	Migration Rates (%)	Percentage of Migrants (%)	
		Inter-prefecture	Intra-prefecture
1960	6.09	47.5	52.6
1961	6.42	49.1	50.9
1963	6.95	50.2	49.8
1963	7.26	50.1	49.9
1964	7.51	50.1	49.9
1965	7.56	50.0	50.0
1966	7.55	49.6	50.4
1967	7.51	50.3	49.7
1968	7.72	50.6	49.4
1969	7.97	50.6	49.4
1970	8.02	51.2	48.8
1971	8.00	50.9	49.1
1972	7.88	49.8	50.2
1973	7.87	49.6	50.4
1974	7.30	49.0	51.0
1975	6.78	49.0	51.0
1976	6.57	48.2	51.8
1977	6.51	48.2	51.8
1978	6.37	47.8	52.2
1979	6.32	47.6	52.4
1980	6.07	47.5	52.5
1981	5.89	48.1	51.9
1982	5.81	48.0	52.0
1983	5.62	47.9	52.1
1984	5.49	47.8	52.2
1985	5.39	48.1	51.9

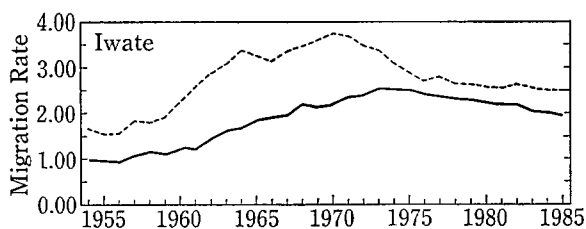
Source: Statistics Bureau, Management and Coordination Agency, *Annual Report on the Internal Migration in Japan*, derived from the Basic Resident Registers, 1985, 1986, p. 8.

FIG. 5. TYPES OF NET MIGRATION

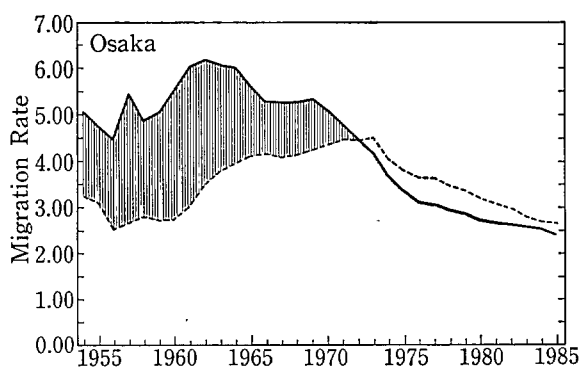
(A)



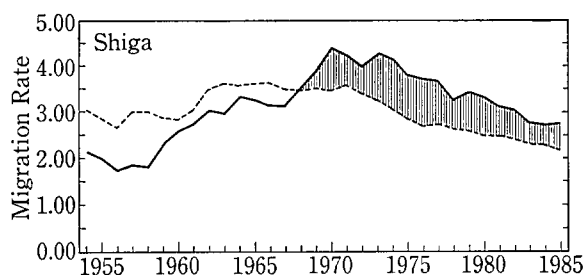
(B)



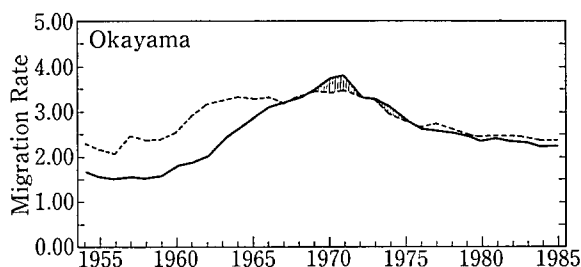
(C)



(D)



(E)



Prefectures in group A, located adjacent to Tokyo, continued to show a net gain in population which is considered to be the result of the sprawling increase of the Tokyo Metropolitan District.

Prefectures in group D show similar characteristics as those in group A. Although the time of reversal from net loss to net gain differed within group D, each prefectures belonging to group A and D accepted quite a large number of net in-migrants until around 1970. Since

TABLE 8. MIGRATION BETWEEN METRO AND NON-METRO DISTRICTS

(1,000 persons)						
Year	Total	Within Metro District (A)	From Metro District to Non-metro (B)	From Non-Metro to Metro District (C)	Within Non-metro (D)	Net Gain of Metro Districts (C)-(B)
1960	2,680	706	406	999	568	594
1965	3,692	1,116	705	1,186	685	481
1970	4,235	1,346	870	1,263	757	393
1975	3,698	1,174	901	912	711	11
1980	3,362	1,084	797	789	692	△ 8
1985	3,117	982	680	781	674	102

Source: From 1960 to 1980; Statistics Bureau, Office of the Prime Minister, *Jinkou Idou* [Migration], 1984, p. 26.

1980; Statistics Bureau, Management and Coordination Agency, *Annual Report on the Internal Migration in Japan derived from the Basic Resident Register*, 1985, 1986.

Note: (1) Metro Districts include Saitama, Chiba, Tokyo, Kanagawa, Gifu, Aichi, Mie, Kyoto, Osaka, and Hyogo.

Non-Metro include all prefectures except Metro Districts.

(2) Figures in 1960, 1965, and 1970 exclude Okinawa.

1970, however, the net flow of population began to decrease.

Prefectures in group B were generally located in remote areas away from big cities such as Tokyo, Osaka, and Nagoya, and the proportion of primary industries in those prefectures was higher than the national average. Due to these characteristics these prefectures lost more people than they accepted. Although they continuously recorded net losses in population, the gap between out-migration and in-migration has been narrowed in recent years.

Group C represents prefectures with large industrial and commercial areas. This group recorded net losses in population after experiencing net gains during the first half of the period under study. This reversal is considered to be a reaction to the problems resulting from over-population. Although Tokyo was classified in group E as of 1986, Tokyo returned to the net population gain group in 1985.

Common feature of group E is that each prefecture within it has a large city which attracted population from neighboring prefectures. However, this attractive force was not strong enough to sustain a net in-migration. The recent decade has brought to light two types within this group: prefectures which have broadened the gap between outward and inward movement of population, and prefectures which have narrowed this gap. The point which determines this divergence within group E is the difference in overall development of each prefecture.

### 3 Migration between Metropolitan and Non-metropolitan Districts

From the viewpoint of migration preferences of inter-prefectural migration, Table 8 reveals several important facts. We can tentatively divide Japan into metropolitan districts and non-metropolitan districts; Metropolitan districts includes Saitama, Chiba, Tokyo, Kanagawa, Gifu, Aichi, Mie, Kyoto, Osaka, and Hyogo. The remaining prefectures are lumped together as non-metropolitan districts. Following the division of Japan into two distinct districts, interprefectural migration can be divided into four sub-types: (A) migration within metropolitan districts, (B) migration from a metropolitan district to a non-metropolitan district, (C) migration from a non-metropolitan district to a metropolitan district, and

(D) migration within non-metropolitan districts.

As mentioned above, the total number of inter-prefectural migrants began to decrease since 1973. Although this overall tendency was found in all four migration types, the weight of each type to total migration changed slightly. First, while the weight factor of migration from non-metropolitan districts to metropolitan districts was reduced during the period shown in Table 8, migration in the opposite direction, *i.e.* migration from metropolitan to non-metropolitan districts increased in percentage to total migration at least until 1980. This trend gives an impression of a return of population to rural areas. In reality, however, two factors should be considered as affecting this movement: One was the development of prefectures with local core cities, such as Miyagi, Aichi, Nagano, Shizuoka, Hiroshima, and Fukuoka. These prefectures attracted population from the metropolitan districts. The other factor was the expansion of the suburban areas, which received people from the metropolitan areas. Prefectures such as Ibaragi, Gunma, Tochigi, Shiga, and Nara fall into this category.

Second, the ratio of migration within the metropolitan districts increased during the 1960s and this level has been sustained. This tendency can be interpreted as the result of the process of urban sprawl, as well as the result of the increasing frequency of population movement to major cities within metropolitan districts.

Third, the ratio of migration within non-metropolitan districts increased in recent decade after a decreasing trend in the 1960s. This reversal is mainly attributed to the development of prefectures with local core cities which attracted people from neighboring prefectures. At the same time, it is also possible to say that the concept of "Teijuu-ken", which was one of the main guidelines of Dai Sanji Zenkoku Sougou Kaihatsu Keikaku (Third National Plan for Comprehensive Development), began to filter gradually into people's consciousness.

Fourth, the net gain in population in metropolitan districts changed dramatically during this period. Metropolitan districts accepted a net gain of migrants until 1975, and this movement is considered to be the dominant style of migration. However, the total net gain in population in metropolitan districts decreased from 594,000 in 1960 to 11,000 in 1975. These districts finally experienced net losses of inter-prefectural migration in 1976. Although the number of losses was not large, this fact clearly shows that the movement of inter-prefectural migrants was not a unilateral movement toward the metropolitan districts. Recently, metropolitan districts have again recorded net gains (Management and Coordination Agency, 1986). This recovery should be considered a reflection of recent expansion in the disparity in prefectural per capita income as mentioned above.

In concluding this section, we must pay particular attention to the two contradictory movements in recent migration patterns: the revival of net gain in population in metropolitan districts, and the increasing importance of migration within non-metropolitan districts. From the view point of effective land use and in terms of improving socio-economic conditions, a further concentration of population in metropolitan areas is not desirable. It is time to search for feasible measures which will contribute to a dispersion of population and the revitalization of local areas.

(to be continued)

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