

Development Policies and Spatial Integration in Japan from 1868 to 1941*

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I. Introduction

This study tries to clarify the reasons for the successful progress of Japanese modernization after the Meiji Restoration of 1868 and the swift achievement of an economic and geopolitical advantage over the other Asian countries. From several reasons, the author proposes that the proper execution of development policies, which facilitated the flow of transportation and communication, might be the key factor in the successful modernization of Japan (Mizuuchi, 1994). From a geographical viewpoint, this mechanism can be illustrated by analogy to the logic of spatial integration. This spatial mechanism of modernization has attracted little attention from historians, economists and political scientists. Therefore, the concept of spatial integration should be more thoroughly explored as the ideological motivation to promoting the modern development of Japan.

In examining development policies historically, the following five policies should be considered for this geographical ideology of spatial integration: 1) the policy of river and flood control and water resource management, 2) the policy of road construction and maintenance, 3) the policy of harbor construction and maintenance, 4) the policy of railway construction, and 5) the

policy of city and regional planning. As Lefebvre (1990) showed, space acquires its existence as a concrete abstraction when it becomes the bundle and cluster of networks and paths, so that spatial integration corresponds to the socio-spatial process of eliminating time conflicts of movement between two places by the construction of modes of rapid and mass transportation and communication (Mizuoka, 1992). In other words, the geographical ideology legitimizes the efficient and balanced investment of capital toward the construction and maintenance of infrastructure, the efficient networking of the flows of peoples and goods and the equal provision of services. Such an ideology plays a crucial role in achieving the homogeneous equity of the spatially integrated nation-state.

From this viewpoint of spatial integration, the above policies 2), 3), and 4) are particularly worthy to note since they were pursued by the leadership of the central government in the early period of the Meiji Era by establishing long-term construction and maintenance plans. If we follow the conventional academic understanding of the development policies in Japan, the first planned development policy was generally thought to be the postwar national comprehensive development plan established at the beginning of the 1950's (Kawashima and Kamozaawa, 1988). Instead, the author would like to propose a new understanding of the advent of planned development policies in Japan. Such work had already started at the beginning of the 1910's, and this highlighted the planning principle in elucidating the actual contents of each development policy. In the analysis of spatial integration, different principles can be found in the decision-making processes of development policies. The following two principles

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were especially influential: that of pursuing economic rationality and that of making much use of political interest, which was mainly derived from political parties, central government technocrats, military authorities and local politicians (Ariizumi, 1980). The phrase '*Gaden Intetsu*' (pursuing one's own interest by forcibly introducing a railroad forcibly in one's locality) is often used when we talk about the selfish manner of local politicians. However, few studies have been conducted to provide a comprehensive picture of the Japanese development policy in the prewar days.

Regarding the specific form of modernization in Japan, the policy of river and flood control and water resource management was at the center of the development policies. Even if this policy did not directly contribute to spatial integration, it was inevitable for the central government to maintain inter-regional networks and communication. Unfortunately, the current geographical studies from a political economy approach have not paid little attention to development policies such as flood control and disaster relief works, probably because such natural disaster is so common in monsoon-stricken Asia. In spite of this academic neglect, development policy is a very important issue in the study of nation-state building; it must be examined to clarify the operating mechanism of the policy that was so effective in legitimizing central government intervention and winning the public loyalty to the nation-state of Japan.

II. The transition of capital formation and government investment

Generally, capital formation indicates the degree to which public and private sectors individually invest money in the construction and equipment of various infrastructures. By using the estimation of capital formation (Emi, 1974), government investment in pursuing development policies can be calculated. The following figures illustrate the historical transition of capital formation in both the public and private sectors for the purposes that are directly related to the outcomes of development policies. Using several line graphs to illustrate the trend of capital formation by the central government, local government and private sector, the author points out the general characteristics and individual features of these

transitions.

Each figure shows investment shares calculated as five-year running averages. Figures 1 and 2 show the strength of the government's role in investment to the total built environment in Japan. The values of the government share as an indicator of state intervention act differently between construction and equipment investment. In the case of construction, as shown in Figure 1, investment for military use is generally very small in the three small rises of the Sino-Japanese War of 1894-1895, the Russo-Japanese War of 1904-1905, and the Second World War. Government investment in the non-military sector is characterized with two phase of swellings: the first one is seen after the Russo-Japanese War in the late 1900's and the beginning of the 1910's, and the second one is observed in the 1930's. Both periods are very crucial to understanding the timing of and reasons for the different types of state intervention.

The first phase clearly reflects a shift in the domestic policy of the central government. In particular, the Ministry of Home Affairs took the initiative in this political shift from promoting the policies of manufacturing industries at the beginning of the Meiji Era to promoting investment in infrastructure (Nakamura, 1998). After the Russo-Japanese War, this ministry launched the so-called 'Reform Movement of the Province' to heighten the loyalty of the ordinary people who were distressed by the economic depression and the failure of a total victory in the war. This movement provided both a heightening of the moral of the people and the introduction of public works projects. This series of public works projects was characterized by long-term plans for river and flood control, harbor construction, and networking the national railway.

The second phase of the government share's swelling in the 1930's is assumed to be typical state intervention to regulating the effects of economic depression by making huge investments in public works. At the beginning of the 1930's, the Relief Works for the Unemployed, as well as the Current Relief Works for Regional Rehabilitation started mainly as road construction and repair (See Table 1). These projects developed the strict policy of direct responsibility of the central government in implementing public works and produced the system of fixed subsidy rates according to each public work.

Figure 2 illustrates the same trend, but the military share acts much more dynamically in the case of equipment investment than in that of construction. It is also noted that a significant increase in the share of private sector at the turn of the 1910's to 20's is very clear. At this moment, the Japanese economy had given the industrial concerns the confidence to compete with the Western powers. This domination of private power in the Japanese economy caused government intervention to widen in the following two ways: the policy of controlling industrial activities and that of promoting local infrastructures.

Let us now discuss capital formation by the central government, local government and private sector. Figure 3 shows the transition of shares of construction investment by the central government. After the Nationalization of Private Railways Law of 1906, nearly half of the central government investment was thrown into railway construction (transportation) during the 1910's and 20's. This value vividly shows that the priority of infrastructure policies is firmly set on swift construction of the national railway network. The share of public works has two peaks at the beginning of 1910's and at the middle of the 1930's. These peaks individually reflect the two intervention phases of the central government.

Examining in detail the types of the public works investments, Figure 4 shows the degree of the central government's responsibility for the provision of each infrastructure. The share of riparian, which means investments in river and flood control dominates from half to two-thirds of the total investment in public works, with two peaks

and a gradual decrease during the 1920's and the last half of the 1930's, respectively. As mentioned, river and flood control is important in the Monsoon climate of Japan. Therefore, the central government most swiftly acted to take up river and flood control works as a national project by the enforcement of a related act at the end of 1890's. The first peak of the riparian share reflects the enforcement of this act. The second peak coincides with the establishment of the long-term plan of river and flood control projects at the beginning of 1910's.

The share of harbor construction is stable in its transition around twenty percent with two small increases in the 1900's and at the beginning of the 1930's. Modern-style harbor construction started with the rivalry between the cities of Kobe, Yokohama and Osaka, and the central government took the initiative by the introduction of a system of prioritized major harbor construction in 1907. This system was revised in 1922 to allow construction of harbors in outlying areas with the aid of the central government, which is clearly shown by the increased share in Figure 4.

The transition of the share of road and bridges is characterized by one significant increase in the 1930's. The importance of road construction was recognized very late by the central government, whose stress on national networks of transportation was for a long time concentrated on the construction of railway. This increase corresponds to the start of the construction of a national highway network under the direct supervision of the central government, partly owing to the ongoing relief works for the unemployed in the 1930's.

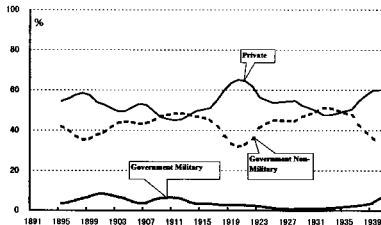


Figure 1. Shares of Domestic Capital Formation:
Construction Investment by Government and Private Sector

Source: See Emi (1971).

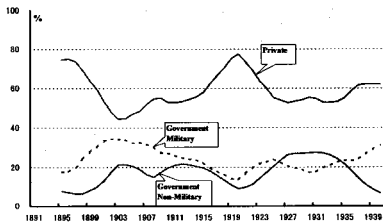


Figure 2. Shares of Gross Capital Formation:
Equipment Investment by Government and Private Sector

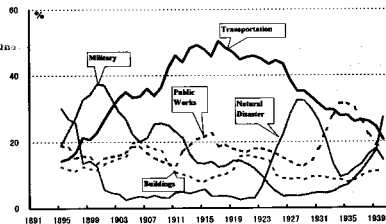


Figure 3. Shares of Central Government Construction
Investment

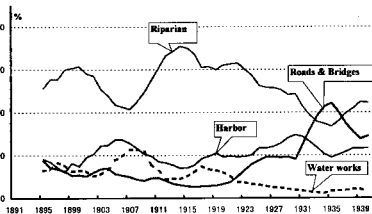


Figure 4. Shares of Central Government Public Works
Construction Investment

In Figure 3, investments in rehabilitation works for natural disasters greatly fluctuated, especially in the late 1920's. This simply reflects the huge rehabilitation works after the Great Kanto Earthquake of 1923. In the latter half of the 1930's, each share of investments by construction type nearly converged, and the share of military investment grew rapidly. This equalization of the investment activity among each infrastructure in the hands of the central government indicates reaching point of the prewar national domestic policy providing infrastructure along the line of state monopolistic capitalism. It should also be noted that the central government was accustomed to heavily intervening in the provision of infrastructure nationwide, and its manner of administration persisted in the postwar regional development policy.

Let us now focus on local government. Figure 5 shows the simple tendency of the share of each type of infrastructure investment. Including prefectural, municipal and town and village governments, the "Building" item mostly involves school house construction. The "Transportation and Public Utilities" item indicates the management of streetcars, buses, retail suppliers of electricity and gas, etc. The increase in the share of transportation and public utilities in the latter half of the 1910's reflects the adoption of this type of public service by metropolitan governments (Mizuuchi, 1991). Sixty to eighty percent of the total investment by local government is in public works. Although, the fluctuation progresses along with that of the central government, each share of public works investment by local government is completely different from the case of the central government. The decreasing share of riparian works for river and flood control indicates the increasing responsibility of the central government in this area. On the other hand, the share of roads and bridges gradually increased to two-thirds of the total public works by local government. Among the infrastructures, construction of roads was placed as the last priority in the public works strategy of the central government, and all roads except national highways continued to be handled by local government. The gradual increase of this share corresponded to the ongoing city planning projects and promotion of intra-city highway networks by prefectural governments. The water works share increased in the 1920's and at the beginning of the 1930's. This service

was fully adopted by almost every municipality, each of which is qualified as a healthy workable city to gain the people's loyalty to the municipal government.

Lastly, let me examine the case of the private sector. Figure 7 illustrates the fluctuating transition of each infrastructure. It is worth noting that investment in the production of electric power is left as the last large-scaled infrastructure free from central government intervention. After the enforcement of the Nationalization of Private Railway Law, large investments in the construction of private railways were switched to the attractive potential of hydro-power stations. A huge amount of money was invested in the construction of power stations, so its share rapidly grew to forty percent. It also increased the inefficient competition between private companies, which led the central government to take control of this industry at the end of the 1930's.

III. The history of development policies in the prewar days

Table 1 shows the history of the five development policies and lists the events and legislation related to these policies. As early as 1873, the ordinance on the maintenance of rivers, bridges, roads and harbors was implemented. This implementation amounted to the central government declaring its authority in such maintenance. However, it did not operate with effective financial and technical support. Rather, the slogan of '*shokusan kogyo*' (promoting and introducing industries) actually meant the central government's initiative to introduce manufacturing factories and mines through the hand of the Ministry of Industries. This policy soon failed at the beginning of the 1880's after the dissolution of this ministry because of the lack of entrepreneurship by the public sector and the economic depression of 1883 (Sakano, 1996). The first railway construction between Tokyo and Yokohama in 1872 was also a kind of propaganda play to show national pride in joining civilized society.

We should give more attention to the legislation of the Law for River and Flood Control of 1896 and the Law for Erosion and Sediment Control of 1897 (Nishikawa, 1969). These two laws had been implemented to meet the strong demands of the local governments that had to invest great amounts of money in improving river.

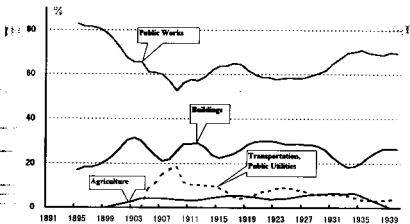


Figure 5 Shares of Local Government Construction Investment

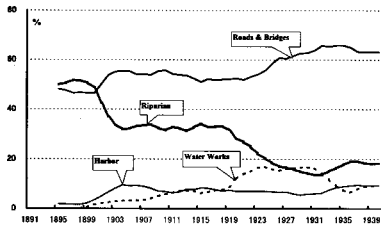


Figure 6 Shares of Local Government Public Works Construction Investment

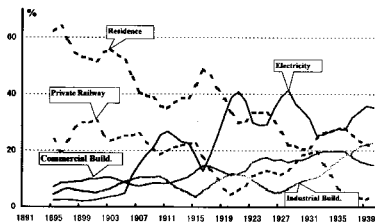


Figure 7 Shares of Gross Private Fixed Capital Formation

1918					Council for City Planning
1919		Roads Improvement Law / Council for Road Improvement / Local Railways Construction Law		Local Railways Construction Law	City Planning Law / Urban Building Standard Law
1920		The First Plan for Road Improvement		Establishment of Min. of Railways	
1921	Law For Reclamation of Publicly Owned Water Surface / The Second Special Council for River and Flood Control / The Second Plan of River and Flood Control	Street Railways Law / Subsidy System for the Road Improvement	Law For Reclamation of Publicly Owned Water Surface	Street Railways Law	
1922			System of Prioritized Local Harbors Construction	Revised Law for Railway Construction	
1923					Establishment of Agency for Imperial Tokyo Rehabilitation
1924					
1925			Special Council for Harbor Construction		Establishment of Semi-governmental Housing Corporation
1926		Plan for Local Highway Network			
1927					Sub-standard Housing Reform Law
1930					
1931	Relief Work for the Unemployed	Relief Work for the Unemployed / Law for Automobile Transportation Business	Relief Work for the Unemployed		Relief Work for the Unemployed
1932	Current Relief Work for the Regional Rehabilitation / Subsidy System for the Local River Improvement	Current Relief Work for the Regional Rehabilitation / Five Years Plan of Road Improvement for the Promotion of Industries	Current Relief Work for the Regional Rehabilitation / Subsidy System for the Local Harbor Improvement		
1933	Conference of Public Works / The Third Plan of River and Flood Control	Conference of Public Works / The Second Plan for Road Improvement	Conference of Public Works		
1934	River and Flood Control Law Revised				
1937	Research Council For Water Resource Utilization	Five Years Plan of Road Improvement for the Progress of Industries			Air Defense Law
1938	Law for Electric Power Control / National Electric Power and Distribution Company Law			Law for Regulation of Land Transportation Companies	
1939		Plan for Road Pavement		Research Commission of the Trunk Railways Construction	Industrial New Town Planning Project
1940					City Planning Law Revised
1941				Imperial Tokyo Rapid Transit Authority Law	Housing Corporation Law

Source: See Nihon Doboku Gakkai (1973).

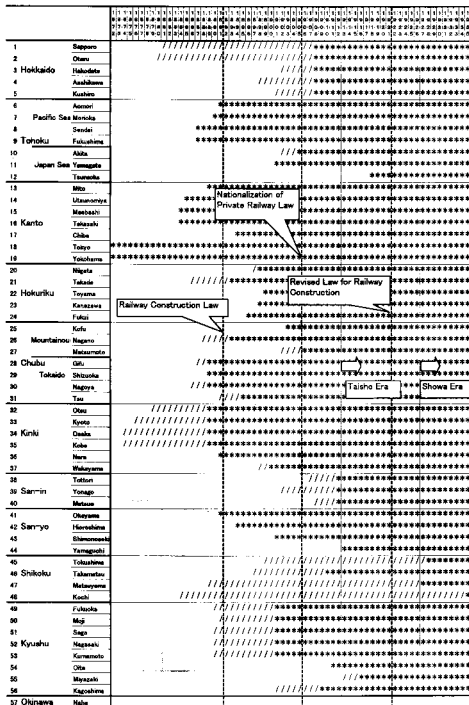


Figure 8 Years of railway opening and connection to Tokyo for major cities

Note: The left side column of '/' indicates the opening year of railways, and that of '*' indicates connection year to Tokyo.

Therefore, the Ministry of Home Affairs, for the first time, directly engaged in improving rivers and selected fourteen major rivers as targets of urgent improvement. It should also be noted that the national railway network and the term of its completion were determined by the stipulations of the Law for Railway Construction of 1892 (Un-yu keizai kenkyu center, 1988). Due to the lack of national government funds for the construction of railways, private companies could be allowed to participate in such construction. An epoch-making policy for the railway issue was the promulgation of the Law for Nationalization of Private Railways in 1906, and through the enforcement of this law, most privately owned railways were swiftly bought by the central government within two years between 1906 and 1907. There were a lot of discussions about the merits and demerits of this nationalization. However, most influential was the requirement from the military authority, who had experienced administration of mass transportation in emergency situations during both the Sino-Japanese and Russo-Japanese wars. New efficient systems of direct transportation and unified traffic fares were introduced. In addition, the independent Agency for Railways was established in 1908, which was later promoted to the Ministry of Railways in 1920. The spatial integration by the construction of the national railway network was thus strengthened through legislation and projects.

Figure 8 shows the diffusion of the railway to the major cities and plots the opening year of railway operation and the year of railway connection to the capital city of Tokyo. Before the enforcement of the Railway Construction Law of 1892, the Tokaido and Tohoku rail lines were already completed. Soon after the enforcement of this law, the Tokaido line was extended toward to the westernmost city of Honshu Island, Shimono-seki. The Shin-etsu line, which already connected the North Kanto district with Tokyo via Takasaki, was extended to the Japan Sea area of the Hokuriku district through the mountainous central Japan area of Nagano Prefecture. Before the Taisho Era (1912-1926), every prefectural capital except Naha in Okinawa benefited from railway service.

In the post-Russo-Japanese War days in the beginning of the 1910's, significant changes in the political and social arenas had occurred. It was also the period in which the central government decided to substantially intervene in the develop-

ment of the national land. In addition to the nationalization of private railways, two new policies appeared with the presentation of the long-term plans by newly established councils, one for river and flood control and the other for harbor construction, that were authorized by the central government. The Council for River and Flood Control was founded in 1910 and the Council for Harbor Construction was founded in 1907. The former council's first plan was to improve twenty major rivers within twenty years through a project in the hands of the Ministry of Home Affairs. The Council for Harbor Construction had selected four major ports (Kobe, Yokohama, Tsuruga and Moji-Shimonoski) as targets of direct construction of the Ministry of Home Affairs as well as 37 major local ports to be handled by local governments with central government subsidies (Un-yusho kowankyoku, 1951). The remaining provincial ports were left as the local government's responsibility. This selection decided the priority of port construction and ensured the intensification of the nodal ports of import, export and domestic inland transportation.

The great socio-economic transformation appeared during the boom in the First World War. In this period, the central government, for the first time, established road construction policy and city planning on its own initiative (Nihon doro kyokai, 1977). The establishment of this road policy had been sought as early as the late 1890's in the preparation for a road construction law. In 1919, this law was at last promulgated. It classified all the major roads into national and prefectural ones and decided who financed their construction. A series of ordinances regarding road construction determined the technical standards of street construction which brought about the advent of a modern-style street system. In the same year of 1919, the City Planning Law was also enforced. Intra-city construction in the urbanized areas was authorized by the prefectural governments under the guidance of the Ministry of Home Affairs. The second river and flood control plan was also established in 1921 to start the improvement of another fifty major rivers within the next ten years. Major local ports whose construction was authorized by the subsidy of the central government also began construction in 1922. Owing to the law for railway construction, the trunk lines of the national railway were nearly completed. In addition, the ruling political party of *Seiyu-kai*

took the initiative in revising the railway construction law in 1922 in order to introduce the national railway into local provincial regions.

In the implementation of a series of the development policies in the 1920's, long-term plans were successively established to strengthen traffic networks, ensure transportation flows and preserve land. The construction of the national railway, the improvement of the major rivers and the construction of the four major harbors were directly supervised by the central government. Nevertheless, most projects related to these development policies were in the hands of local governments. The progress of these works was irregular since the amount and the rate of subsidy from the central government were not fixed except for disaster relief works. The Great Kanto Earthquake of 1923 and the prolonged economic recession in the 1920's urged the decision of the central government to implement several public works with financial aid at a definite rate of subsidy. In addition, this earthquake also produced the group of technocrats who could perform several urban public works through their experience in the rehabilitation projects following the disaster of the Great Kanto Earthquake (Ishida, 1987).

Under these circumstances at the beginning of the 1930's, relief works for the unemployed started to be utilized in 1931 for several public works such as road improvement in local regions with aid at the definite rate of subsidy. The dominant political parties of '*Seiyu-kai*' and '*Minsei-to*' took full advantage of this subsidy system to fulfill their regional interests in attracting local electorates (Mitani, 1967). Therefore, the presentation of by the ruling party the plan for public works was very influential in the domestic political arena of the 1930's. At the same time, a negative tendency began to arise as the basic principle of public works policy was turning away from rational political decision-making when the new cabinet took power from the former ruling party.

In the face of the evil of party politics and the war crisis between Japan and China after the "independence" of Manchuria in 1932, there was desire for a more powerful organization to regulate and promote public works in a more rational manner. In 1933, the Council of Public Works was established in order to develop another ten-year plan for river and flood control, harbor construction and road maintenance and construction. Through this successful council meeting, public

works were effectively regulated and standardized at a fixed rate of subsidy.

After the outbreak of the Sino-Japanese War in 1937, the central government decided to introduce the regulatory system for rationalizing economy and to select important public works to be carried out intensively. For example, the Comprehensive Regional Plan for the Tohoku Region was established to combine flood control, the production of hydro-electric power and the introduction of manufacturing industries. The Newly Industrial Town Planning Projects (1939) were also noted in its pioneering works on new town construction. The central government, which became free from party politics in the wartime, also decided to regulate electric power and distribution companies and local private transportation companies. Along the lines of this economic regulative regime, semi-governmental bodies such as the Housing Corporation (1941), the Imperial Tokyo Rapid Transit Authority (1941) and the National Electric Power and Distribution Company (1938) were established as a result of the central government intervention.

IV. Summary

This analysis draws a very rough sketch of the history and political background of government intervention in the provision of infrastructure. It is necessary here to reconsider the features of Japanese state intervention in prewar days. In this paper, state intervention is discussed with reference to each development policy and described by analogy to spatial integration through the networking and efficient location and balanced investment of many types of infrastructures. These types of infrastructures can be redefined as social overhead capital or built environment, which serves the smooth capitalistic accumulation and reproduction of labor power.

In the discussion of state intervention in geographical studies, it is very easy to remember the theoretical discussion of the two circuit model of capital accumulation and the related role of the state in this mechanism by the guidance of David Harvey's work (Harvey, 1985), and that of Derek Gregory's (1994) 'eye of power', which is the phrase he used to illustrate the colonization process of everyday life by the state and the economy.

At this juncture, the author has to state his difference with Harvey's conceptualization of

state intervention. It is necessary to realize that the state building of modern Japan was strongly characterized by a development-oriented policy, or more correctly, a catch-up-oriented policy by the strong initiative of talented and well-organized technocrats in the central government. Kent Calder (1988) calls this exact state profit-distributive, which is a condition that permits the equal distribution of profits satisfying both regional and socially stratified demands. Chalmers Johnson (1982) also discusses the characteristic of Japanese developmental state intervention as being motivated more by the nationalistic catch-up ideology than by economic reason.

Yujiro Hayami (1995) explains that this type of state intervention is rooted in the ideology of developmentalism, which cannot coexist with marketism. This developmentalism is realized by the comprehensive public strategy of catching up with the Western countries by making large-scale public investments in infrastructure that can serve the construction of industrial capabilities. Thus, the concept of spatial integration, which guarantees the legitimacy of public investment by the central government, seems to be a mirror of the moralistic desire by the Japanese people for national development. This type of state with a strong belief in the developmentalism should be considered very differently from the regulative state that Harvey based his work (Suehiro, 1998).

Japanese political scientists assert that in the modernization process of Japan since the Meiji Restoration the central government established an abstract but rigid state purpose, which has been commonly shared in this relatively long period. Takashi Itoh (1993) calls it *Kokuze* (state ideological slogan) to become a Western advanced country. Takashi Mikuriya (1996) examined this type of state purpose and been cited a specific feature of Japanese state intervention, which has always been ready to make successive efforts to enforce individual planning and integrating them as shown in Table 1. Behind this process, NIRA (1989) pointed out three reasons for state intervention such as investments in networking type of infrastructure: catching up with Western civilization, an exodus from the poverty with the amelioration of regional differences, and war.

The author shows no quantitative evidence for the issue of spatial integration except a figure illustrating the diffused network of railway line.

Further analysis will need to be obtained through scrutinizing the quantitative and descriptive evidence for the degree of spatial integration, networking and the level of equity of the provision of infrastructure developed in each of the development policies. Several important points should be noted to evaluate each development policy: 1) the timing and motivation of government intervention, 2) the form of financial support, 3) socio-political background, 4) real output and its effect, 5) comparison with the policy for the former Japanese colony, and 6) continuity and discontinuity between the prewar and postwar development policies.

Bibliography

- Arizumi, S. 1980, *Meiji Seijishi no kiso katei* (The fundamental political process in the Meiji period), Yoshikawa kobunkan (J).
- Calder, K. E. 1988, *Crisis and compensation: public policy and political stability in Japan, 1949-1986*, Princeton University Press, 1988.
- Emi, K. 1971, *Choki keizai tokei 4: Shihon keisei* (The long-term economic statistics, Volume 4: The capital formation), Toyo keizai shinposha (J & E).
- Gregory, D. 1994, *The geographical imaginations*, Blackwell.
- Hayami, Y. 1995, *Kaihatsu keizaigaku* (Economics of development), Sobunsha (J).
- Harvey, D. 1985, *The urbanization of capital*, Blackwell.
- Itoh, T. 1993, *Shouwaki no seiji, zoku* (Politics of Showa Era, continuation), Yamakawa Shupansha (J).
- Ishida, Y. 1987, *Nihon kindai toshikeikakushi kenkyu* (The modern city planning history of Japan) Kashiwa shobo (J).
- Johnson, C. 1982, *MITI and the Japanese miracles*. Stanford University Press.
- Kawashima, T. and Kamozaawa, I. ed. *Gendai sekai no chiiki seisaku* (The regional policies in the World), Taimeido (J).
- Lefebvre, H. 1990. *The production of space*. Blackwell. translated by Nicholson-Smith, D.
- Mikuriya, T. 1996, *Seisaku no sogo to kenryoku* (Integration of policies and powers), Tokyo Daigaku Shupankai (J).
- Mitani, T. 1967, *Nihon seito seiji no keisei* (The formation of party politics in Japan) Tokyo daigaku shupankai (J).
- Mizuuoaka, F. 1992, *Keizai chirigaku* (Economic Geog-

graphy), Aoki shoten (J).

Mizuuchi, T. 1991, Patterns in public service provision and urban development in prewar Japan before 1945, *Geographical Review of Japan* Series B 64-1, pp.293-312.

Mizuuchi, T. 1994, Geographical thoughts and the nation state building, *Shiso*, 845, pp.75-94 (J).

Nakamura, N. 1998, Center and local region in the late developed industrialization: a case of Meiji Japan. In Tokyo Daigaku Shakaikagaku Kenkyusho ed., *20 seiki sisutemu 4, Kaihatsu shugi* (The system of 20th century, the 4th volume: Developmentalism), Tokyo Daigaku Shuppankai (J).

Nihon Doboku Gakkai ed. 1973, *Nihon doboku shi: Taisho 1 nen kara Showa 15 nen* (The history of Japanese civil engineering: From Taisho 1 (1912) to Showa 15 (1940)), Maruzen (J).

Nihon dorō kyōkai ed. 1977, *Nihon doroshi* (The history of road construction in Japan), Nihon dorō kyōkai (J).

Nishikawa, T. 1969, *Chisui chōki keikaku no rekishi*

(The history of the long-term plan of control of river and flood), Chuo koron shuppan jigyoubu (J).

NIRA, Sogo kenkyū kaihatsu kiko ed. 1989, *shinbun ni miru shakai shihon seibi no rekishiteki henshen, showa-ki* (Historical transition of the provision of social overhead capital in the analysis of newspaper: The Showa period), Nihon keizai hyoronsha (J).

Sakano, J. 1996, *Kindai Nihon no kokka koso* (National design in the Meiji Japan), Iwanami shoten (J).

Suehiro, A. 1998, What is developmentalism? In Tokyo Daigaku Shakaikagaku Kenkyusho ed., *20 seiki sisutemu 4, Kaihatsu shugi* (The system of 20th century, the 4th volume: Developmentalism), Tokyo Daigaku Shuppankai (J).

Un-yū Keizai Kenkyū Center, ed. 1988, *Tetsudo seisakuron no tenkai* (The development of railway policy), Hakuto shōbō (J).

Un-yūshō Kōwankyoku, ed. 1951, *Nihon kōwan shuchikushi* (The historical development of harbor construction in Japan) Un-yūshō (J).