

Trends and Problems in Regional Railway Policy in Japan

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Introduction

Since the 1987 privatization and division of Japanese National Railways (JNR), railway services in Japan have been provided on the assumption that they would be profitable for private operators.

Furthermore, the former Ministry of Transport announced in 1996 that supply and demand adjustment, which had been applied to the public transport market until then, would be eliminated (Handling of Supply and Demand Adjustment by Future Transport Administration). As a result, conditions for entering and withdrawing from the transport market were eased, and many small and mid-sized private railways and bus lines disappeared.

In addition, although authority to license private railways and bus lines remained exclusively with the national government, responsibility for operating subsidies and policy proposals for public transport operators was turned over to municipalities as part of decentralization. Consequently, municipalities with no experience in public transport had to establish departments to handle policymaking for the sector.

As a result, countermeasures to private railways closing unprofitable lines differed by region and, in addition to transport policymaking, many new problems arose, including regional development, reinforcement of community ties, and how to support an aging population.

In light of these issues, this article explains the current situation of local railways in Japan and clarifies the existing problems.

Current Situation of Local Railways in Japan

Instruments for regional railway transport

Regional railway services in Japan are provided by regional members of the private JR group of companies (JR East, JR Central, JR West, JR Hokkaido, JR Shikoku and JR Kyushu), other private railways, and public underground railways.

Since Japan's first railway opened in 1872, the nation's rail network was developed by both the government and private-sector companies, with many of the main lines opened originally as private railways. Following the 1906

nationalization, most of the rail network became government owned but a few relatively short railways handling regional transport were left in the private sector; deregulation and subsidy systems through later legal revisions helped the railway networks expand as private-sector companies.

During WWII, some regional private railways were eliminated by the development of bus transport. However, the postwar situation remained fairly stable until the early high-growth 1960s when the rapid increase in ownership of private automobiles saw large-scale closures of regional private railways. Approximately 1000 km of lines were closed between FY1966 and FY1975, followed by a further 400 km or so later. By the end of March 2006, the network of private railways supporting regional transport outside the greater Tokyo, Nagoya, and Osaka areas had shrunk to just 3902 km (Table 1).

This compares to the 21,000 km of JNR lines after WWII of which 11,000 km of main lines handled 90% of total transport (passengers, tonnes of freight). Another 5000 km handled 8% of transport and the remaining 5000 km handled 2%. JNR lines with low volumes were called regional transport lines, and were a major cause of JNR's deteriorating finances. JNR proposed closing these lines in the late 1960s but political pressure prevented this solution. Finally, the 1987 reforms saw the proposed abandonment of 3157.3 km of former JNR lines. The decision to switch to bus routes or continue operating was left to prefectural and municipal governments, resulting in 1310.7 km remaining as either regional private railways or as so-called third sector railways. The third sector railways differ from traditional public and private operations because they are companies established jointly by local public bodies and the private sector. Private railways in Table 1 include these third sector railways.

Branch-line operators in Japan are classified mainly as either regular railways or non-regular railways. Regular railways are further classified as members of the JR group of companies (JRs), major private railways, second-tier private railways, public operated railways, small and mid-size private railways, and freight lines. Non-regular railways are monorails, new transport systems (guided rail), funiculars, and trackless trains. Trams are a legally separate group, and are outside the scope of this article.

Current situation of regional railways

Railway volumes have tended to increase since 1970 as a whole (Table 2). However, volume in prefectures outside the three major urban areas has declined across the board. Setting 1975 passenger levels as an index of 100, in 2006, the index was 34 for Hokkaido; 36 for Aomori; 53 for Niigata; 39 for Toyama; 51 for Ishikawa; 32 for Fukui; 39 for Shimane; 49 for Kagawa; and 79 for Fukuoka (FY2006 Regional Transport Annual Review). In other words, while populated urban areas saw increases, transport volumes decreased elsewhere.

The transport density index (number of persons

transported per track kilometre per day) is used in Japan to measure the performance of railways. A JNR line with a transport density of less than 4000 was defined as a regional line. Applying this standard to volume in other countries, most have lower transport volumes nationwide.

On regional railways outside Japan's three major urban areas, very few exceed a transport density of 4000 and some have less than 1000. Furthermore, about 30% of all operators are in deficit in terms of operating profit before depreciation. The decline in transport volume and density as well as falling earnings stands out for third sector railways.

Table 1 Japan's Public Transport Network (March 2006)

(Unit: km)

	JR Group	Private railways	Underground	Trams	Buses
Nationwide	17,822.6	6436.7	691.7	207.8	357,103.0
Tokyo, Nagoya, Osaka	1628.6	2534.7	599.1	68.5	32,611.2
Other	16,194.0	3902.0	92.6	139.3	324,491.8

Source: Institute for Transport Policy Studies, *Urban Transport Annual Report, 2007*

Table 2 Change in Number of Railway Passengers

(Unit: 1000 persons)

	1970	1975	1980	1985	1990	1995	2000	2005
Overall	16,384,034	17,587,925	18,044,962	18,989,649	22,029,909	22,679,748	21,809,967	21,810,623
(Index)	93.2	100	102.6	108.0	125.3	129.0	124.0	124.0
JNR/JR Group	6,534,477	7,048,013	6,824,817	6,943,358	8,357,583	8,883,691	8,701,483	8,616,982
(Index)	92.7	100	96.8	98.5	118.6	126.0	123.5	122.3
Other	9,849,557	10,539,912	11,220,145	12,046,291	13,672,326	13,796,057	13,108,484	13,193,641
(Index)	93.5	100	106.5	114.3	129.7	130.9	124.4	125.2

Source: Institute for Transport Policy Studies, *Railways in Numbers 2006*

Table 3 Modernization Subsidies

	1972	1975	1980	1985	1990	1995	2000	2005
Applicable operators (companies)	19	21	27	22	22	57	55	56
Amount (¥M)	65.2	151.0	628.2	563.0	503.0	2247.7	2357.9	2678.7

Sources: Institute for Transport Policy Studies, *Railways in Numbers 2006*
Seiji Fukuda, *Public Transport in Rural Areas*, Hakuto-Shobo Publishing Co., 2005

Measures for Retaining Regional Railways

Subsidy policy

Although loss subsidies were given to help retain private railways when business conditions were difficult, they were discontinued in FY1997. Today, there are some subsidies for modernizing facilities with the purpose of improving profitability, service, and safety.

Business conditions at regional private railways have been deteriorating since the late 1960s, making it difficult for operators to invest in safety measures. As a result, a subsidy system was created in 1969. Initial subsidies were only about ¥65 million, but grew to ¥500 million in the late 1970s, expanding to ¥1 billion in the 1990s, and currently standing at ¥2.5 billion (Table 3). The national government and local public bodies subsidize at equal ratios with the basic subsidy rate being 20%. However, there are some preferential measures too.

Furthermore, FY2008 saw the establishment of the new Railway Business Restructuring Project whereby the national government backs-up local public bodies when they support actions to relieve the infrastructure expenses of passenger railways in financial difficulties. These actions are taken by local public bodies to change the business structure by implementing two-tiered systems such as public-owned/private-operated.

The new system is supported by an overall package that includes aspects such as legislation, budgets, preferential taxes, and regional fiscal measures. As part of these measures, the national government and local public bodies subsidize 33% of the costs for both upgrading and replacing large facilities, such as deteriorating tunnels and bridges, which are not included in modernization subsidies.

When implementing these projects, the local public body and railway operator must establish a consultative body.

Problems with railway retention measures

As explained above, the national government's policy for regional railways assumes service by existing private operators and relaxed regulations about operations in 2000. Where line closures previously required government permission, now only advance notice (1 year) is required. Consequently, lines can be eliminated without local approval. The Ministry of Land, Infrastructure, Transport and Tourism (MLITT) holds hearings before closure to determine whether 'securing convenience for the public is possible' but a line will not continue unless local public bodies take measures to support operations.

Of course, blindly retaining lines irrespective of profitability and environmental issues is not always efficient, and there is a problem in having local public bodies with no transport experience take responsibility for measures and proposals with no studies of how the railway should be run.

As mentioned earlier, railway services in Japan are provided on the basis of profitability for the operator, so decisions on service levels and costs are left to the operator's discretion. Only the operator and MLITT—which authorizes fares—know the demand, cost structure, appropriate service levels and costs; local public bodies do not have this information.

Furthermore, until now, the national government has licensed and approved operators, so local public bodies could prevent line closure just by asking the national government to maintain the line. Such tactics were effective when line closure required government permission and local public bodies neither had to consider transport policies nor had the authority to do so.

As a consequence, they lack experience and information when forced to make specific policies. Modern public transport policies and traffic economics now use a framework to consider long-term and short-term perspectives separately and to differentiate actual operation. For example, Van de

Velde's STO framework incorporates Strategy (S) as setting targets for transport policy and share, coordination between modes, and general service characteristics; Tactics (T) as setting service levels (lines, fares, schedules, etc.); and Operation (O) as actual train operation, sales, and public relations. In Japan today, tactics and operation are left to operators, without long-term strategy.

Local trends

More than 15 lines (including line sections) have been considered for closure since 2000 with 12 lines (388.3 km) actually closed. However, there are examples of post-closure notification actions keeping lines in service.

One example is the 59.2-km Keifuku Railroad Echizen Line in Fukui Prefecture. Following two train accidents in December 2000 and June 2001, it was instructed by MLITT to suspend operations. The operator subsequently submitted a notice of line closure in October 2001. The line was made up of three sections and closure of the 6.2-km Eiheiji Line section was accepted in February 2002. However, the remaining two sections were transferred to the third sector Echizen Railway and remain in operation. Talks with the community on eliminating the line had been ongoing since the 1990s and a decision was made to create a third sector operator with costs borne by the community. The number of annual passengers has risen from 2.247 million in 2000 to 3.071 million in 2007.

This exceptional case where rail transport was cut and substituted by bus service brought to light serious problems with substitute bus services, such as road congestion and increased travel times, raising the momentum to preserve railway lines.

In the case of the Wakayama Electric Railway Kishigawa line in Wakayama Prefecture, a major railway company—Nankai Electric Railway—announced its planned closure of the 14.3-km Kishigawa Line, and trackside municipal governments studied a takeover. A public tender for an operator was based on the premise of the prefecture bearing the infrastructure costs and local municipalities providing business support for 10 years. As a result, Okayama Electric Tramway of Okayama Prefecture took over operations as Wakayama Electric Railway. Despite the unusual public tender to find an operator, the annual number of passengers rose from less than 2 million to 2.11 million in 2006 when Wakayama Electric Railway started. (see pp 10–15 for more details.)

Kintetsu Railways' Yoro and Iga lines (Gifu and Mie prefectures) are run with Kintetsu owning the infrastructure and Yoro Railway and Iga Railway running operations as Kintetsu subsidiaries. This two-tiered system allowed the lines to continue in operation and a scheme was created where the operators receive annual operating subsidies from

trackside municipalities. Other examples of lines supported by prefectures or municipalities include Ueda Electric Railway in Nagano Prefecture, Takamatsu-Kotohira Electric Railroad in Kagawa Prefecture, and Matsuura Railway in Nagasaki Prefecture.

Although the absolute number of public transport passengers in regional areas is declining due to the drop in rail's share caused by growth of automobile ownership and concentration of population in cities, there may be some recovery due to a growing segment of older people who cannot or do not wish to drive; the problem of securing mobility for this segment is an important issue for regional communities, requiring studies on the basic transport strategy of local public bodies.

Further exchange of information and sharing of experiences will be important factors in assuring success. ■



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