

Role and Functions of Railway Development Fund

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Introduction

Japan is a long, narrow, and mountainous country. In particular, industry and population are extremely concentrated in the Tokyo-Yokohama, and Osaka-Kobe megalopolises. Railways play a vitally important role in the intercity and intra-city passenger and freight transport.

Railway development has been led directly by the government at one time, and by the private sector at another. Today, Japan has a unique scheme of aiding railway development through the Railway Development Fund (RDF) government agency. This article explains the role and functions of the RDF by reviewing the reason for its establishment.

Reason for RDF Establishment

Increasing development funds

Railways are social capital for securing smooth movement of people and goods. Development of the existing rapid-transport network will promote growth of a multipolar society (government's basic land policy) and good local transport. In concrete terms, development of shinkansen, and urban railways such as subways and the New Joban Line to the NW suburbs of Tokyo, became an urgent task in the late 1980s as described in the Fourth Comprehensive National Development Plan and the Master Plan for Public Investment.

However, since railway development requires heavy long-term investment, it is almost impossible for railway companies to self-finance the required new lines, especially in the face of severe competition from motor transport. Consequently, the government must create a favorable investment environment by providing railway companies with financial support.

The Japanese government had long used

the general account for development funds. Since there was no independent funding system, it was difficult to build the required railways in line with the National Development Plan. To remedy the situation, the government created a new source of funds by establishing the Railway Development Fund.

Division of JNR into JRs

Despite producing some shining achievements, including the shinkansen, which topped 200 km/h on rail for the first time in the world, JNR's financial status deteriorated in the mid-1960s and it was clearly insolvent by the early 1980s. Eventually, it was decided to split JNR into six regional passenger companies (JR) and one freight company (JR Freight). Since there was a problem of uneven profitability between the four existing shinkansen, it was decided to establish the Shinkansen Holding Corporation (SHC). This corporation owned all the shinkansen facilities and leased them to the JRs at rates appropriate to their actual earning power and transport volume to equalize the financial bases of the JRs

and the users' fare burden.

The law governing the incorporation of SHC envisioned variable lease rates; the leases were to be recalculated every 2 years in accordance with the actual traffic volume, but the law was amended in 1989 to allow the Minister of Transport to fix the rate, based on profit projections. This reduced the role of SHC in equalizing profits.

SHC Leasing problems

The three JRs operating shinkansen registered huge profits and decided to list their stocks. However, listing under the leasing system presented three problems in terms of protecting investors, and stabilization of stock prices, etc.

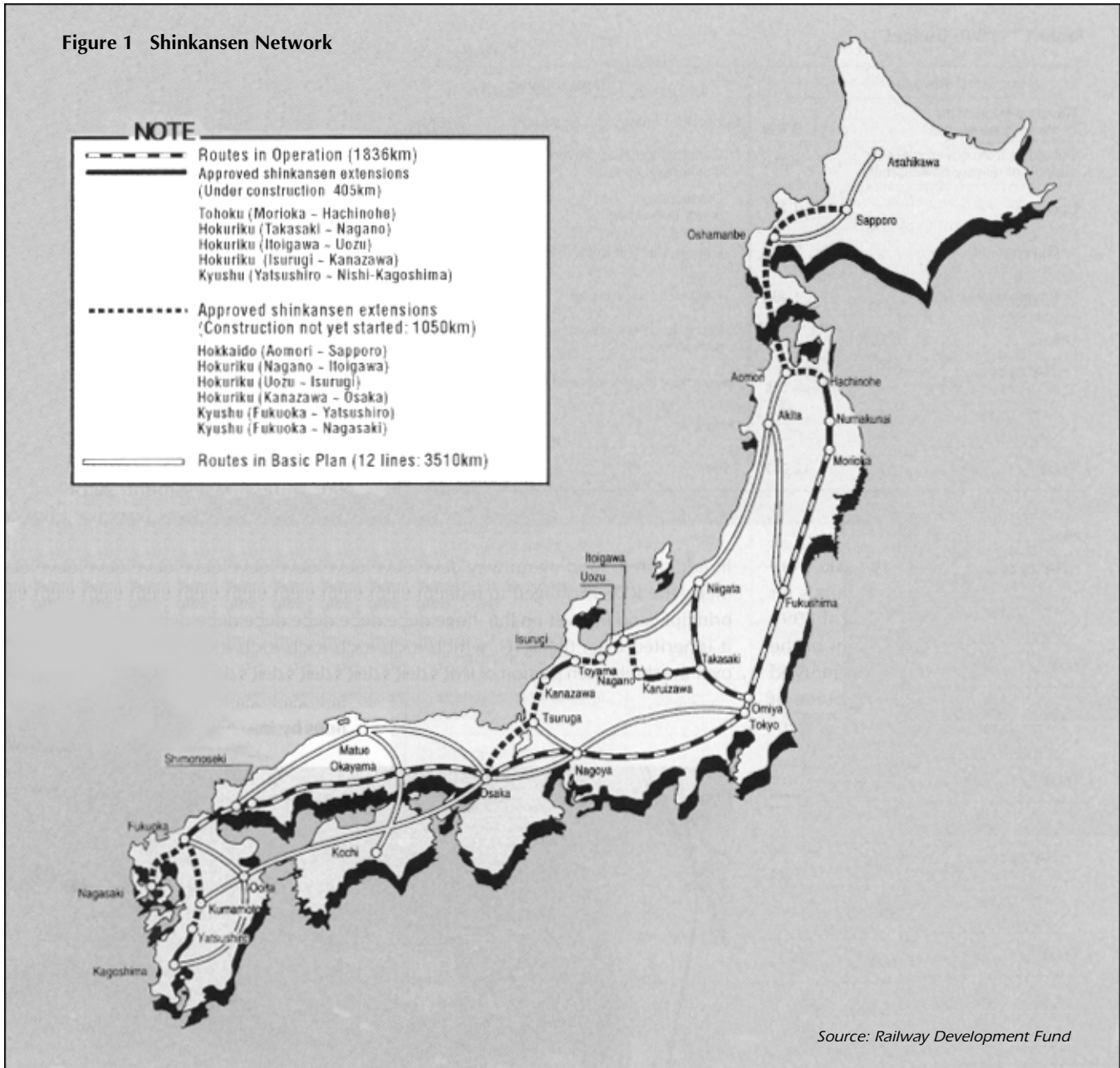
A. Under the shinkansen leasing system, the JRs were not allowed to depreciate leased assets. This problem was most serious for JR Central which depended heavily on the Tokaido Shinkansen for revenue and could not reserve funds for maintenance and renewal of the line. Consequently, JR Central suffered from a conspicuous disadvantage of requiring loans.



Saku Station under construction on Hokuriku Shinkansen

(JR East)

Figure 1 Shinkansen Network



B. Although the lease rates were almost fixed, there was still room, at least institutionally, for some measures to adjust revenues between the three shinkansen-operating JR's. Thus, each was not completely independent of the others.

C. The assets and liabilities of the JR's after the expiration of the lease period were unclear because SHC owned the shinkansen facilities and concrete conditions for transfer to the JR's were deferred to future legislation.

Transfer of Shinkansen to JR's and establishment of RDF

With the expected listing of the JR's, to clarify and strengthen their autonomy, it was decided to transfer ownership of the shinkansen facilities to them at reasonable prices.

Table 1 1996 Budget

(100 million yen)

Revenue		Expenditure	
Revenue by transfer of shinkansen assets	6,738	Support for railway development	2,736
Subsidies from government for support of railway development	1,310	Construction of approved shinkansen lines	1,069
Loans	4,775	Development of major trunk lines	224
Government	3,343	Development of urban lines	1,354
Private bodies	1,432	R&D including mag-lev	48
Others	4	Work for safety, disaster prevention, etc.	41
		Repayment of principal and interest	10,078
		Others	13
Total	12,827	Total	12,827

Part of the proceeds from the sale were earmarked as a new source of funds for railway development. The fiscal 1991 budget approved establishment of the RDF as the government agency entrusted with this role using the new source of funds and appropriations from the general account.

Role and funding of RDF

The RDF is the government agency responsible for railway development, under the supervision of the Minister of Transport. It provides railway companies with subsidies, grants, interest-free loans and other support to help them improve railway facilities and develop their business. Its budget is shown in Table 1. There are three main sources of revenue: The major part is paid biannually (for 60 years) by JR East, JR Central and JR West for the shinkansen transfer. The second source is subsidies from the government general account, and the third source is loans from the government and financial institutions.

In addition to funding railway development, the RDF is obliged to redeem the principal and interest on the huge debts it inherited from the SHC, which took over the shinkansen portion of JNR's debt.

RDF Projects

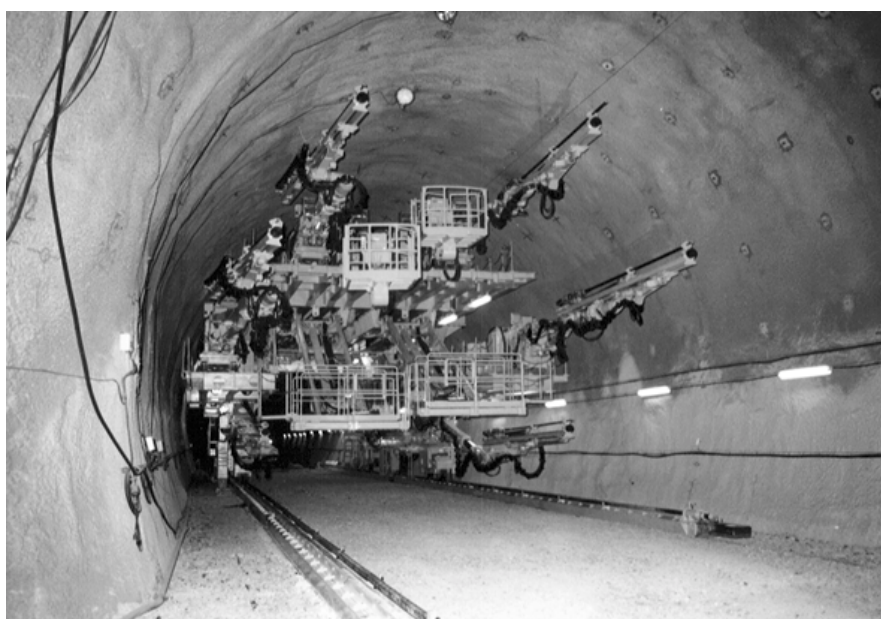
Table 2 shows the three main areas of RDF support.

Shinkansen construction

The RDF mainly provides grants and subsidies to Japan Railway Construction Public Corporation (JRCCPC) to construct sections of the Tohoku, Hokuriku and Kyushu shinkansen (Fig. 1). In addition, the RDF subsidizes JRCCPC to survey and carry out the detailed design of some stations in advance for land acquisition on the extended shinkansen lines prior to the formal commencement of the rail construction. It also subsidizes environmental impact assessment, economical designing, etc., for shinkansen extension projects.

Trunk line development

A large proportion of subsidies in this category are interest-free loans for expanding capacity on the Tokaido Shinkansen and upgrading conventional lines by introduction of mini-shinkansen,



Six-boom gantry Jumbo drilling machine used for boring tunnels on Hokuriku Shinkansen

(JRCCPC)

as well as by utilizing links with operating shinkansen. An example is the Akita mini-shinkansen which shortens the travel time from Tokyo by about 50 minutes to 3 hours 49 minutes when it opens on 22 March.

Urban line development

The RDF provides interest-free loans to the Teito Rapid Transit Authority running Tokyo's subways, to the New Joban Line, and for double-tracking urban transit lines. Subsidies are provided to municipal governments and railway companies building new lines to satellite towns outside Tokyo and Osaka. It is also subsidizing major earthquake-proof renovation of subways in Japan's large cities as a result of the lessons learned from the Great Hanshin Earthquake in January 1995.

Other projects include subsidies to the Railway Technical Research Institute (RTRI) developing the superconductive mag-lev. It also gives subsidies to RTRI and other companies for technological studies aimed at railway safety, environmental preservation, disaster prevention, etc.

Conclusion

The RDF provides various subsidies and interest-free loans for railway development in Japan using a unique scheme. In many countries, attention is being redirected to the advantages of railways—rapid transit, environment-friendliness, energy efficiency. To help create a truly affluent society in the next century, the RDF will continue playing an effective role in railway development.

The RDF will be merged with the Maritime Credit Corporation (MCC) during fiscal 1997 as part of the government's plans to rationalize the number of government agencies.

At present, the MMC finances and guar-

Table 2 Main RDF Projects

Projects	FY1996 budget (Million yen)	Outline
Support for construction of approved shinkansen lines	106,931	
(1) Subsidy and grant for approved extension project	102,931	Approved extension project of shinkansen lines (Tohoku, Hokuriku, Kyushu)
(2) Subsidy for development of stations for the authorized extension project	1,000	Detailed design of new stations prior to formal commencement of construction (Toyama, Kumamoto)
(3) Subsidy for preparation for authorized extension project	3,000	Preparatory works for proposed extension project of shinkansen lines on sections in Basic Plan (Hokkaido, Tohoku, Kyushu)
Support for development of major trunk lines	22,377	
(1) Interest-free loan for trunk line development	6,185	Interest-free loans to Japan Development Bank funding JR Central increase in transport capacity on Tokaido Shinkansen line Interest-free loans for introduction of mini-shinkansen trains on conventional lines, upgrading such lines and expanding of freight transport capacity
(2) Subsidy for construction of local lines and local trunk lines	14,750	Subsidies for construction of local lines (Hokuetsuhoku, Sukumo, Ihara, and Asa lines)
(3) Subsidy for renovation of trunk lines	1,052	Subsidies for upgrading Hokuetsuhoku line, and Sekisho-Nemuro line
(4) Subsidy for survey work for proposed shinkansen	390	Subsidies for survey works for Chuo Shinkansen and Shikoku Shinkansen (Honshu-Awajishima)
Support for development of urban lines	135,384	
(1) Interest-free loan for development of urban lines	64,052	Interest-free loans for subway construction by TRTA, New Joban Line construction and work for double-tracking urban lines
(2) Subsidy for construction of subways	66,287	Subsidies for construction and major improvement of subways including earthquake-proof renovation
(3) Subsidy for construction of new town railways	2,663	Subsidies for construction of railways between downtown and new towns, and earthquake-proof renovation
(4) Subsidy for renovation of trunk lines	10	Renovation of Osaka Outer Loop Line (Joto Freight Line) for passenger service
(5) Subsidy for interest payments on construction cost of urban lines	2,372	Subsidies for interest payments by JRCP on construction cost of urban lines

antees loans, under the supervision of the Minister of Transport, for building and refitting merchant ships. ■

Note: On 1 October 1997, the Ministry of Transport merged the Railway Development Fund and the Maritime Credit Corporation to form the public Corporation for Advanced Transport & Technology (CATT). It is responsible for granting subsidies to shinkansen construction projects, interest-free loans to construct and improve arterial and urban railways, and loans and credits for maritime shipping companies.



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Mr Ono studied law at the University of Tokyo and joined the Ministry of Transport in 1971. He was Counsellor for external affairs at the Cabinet Secretariat, and Director of the International Planning Division at the Ministry of Transport. He is currently General Affairs Director at the Railway Development Fund.