The Backdrop to Privatisation in Japan

— Successful "Surgical Operation" on Japanese Railways

Yukihide Okano

1.Introduction

Japan has 158 railway companies, excluding monorails, new transit systems and cable railways. Eighteen of these companies are freight railway operators.

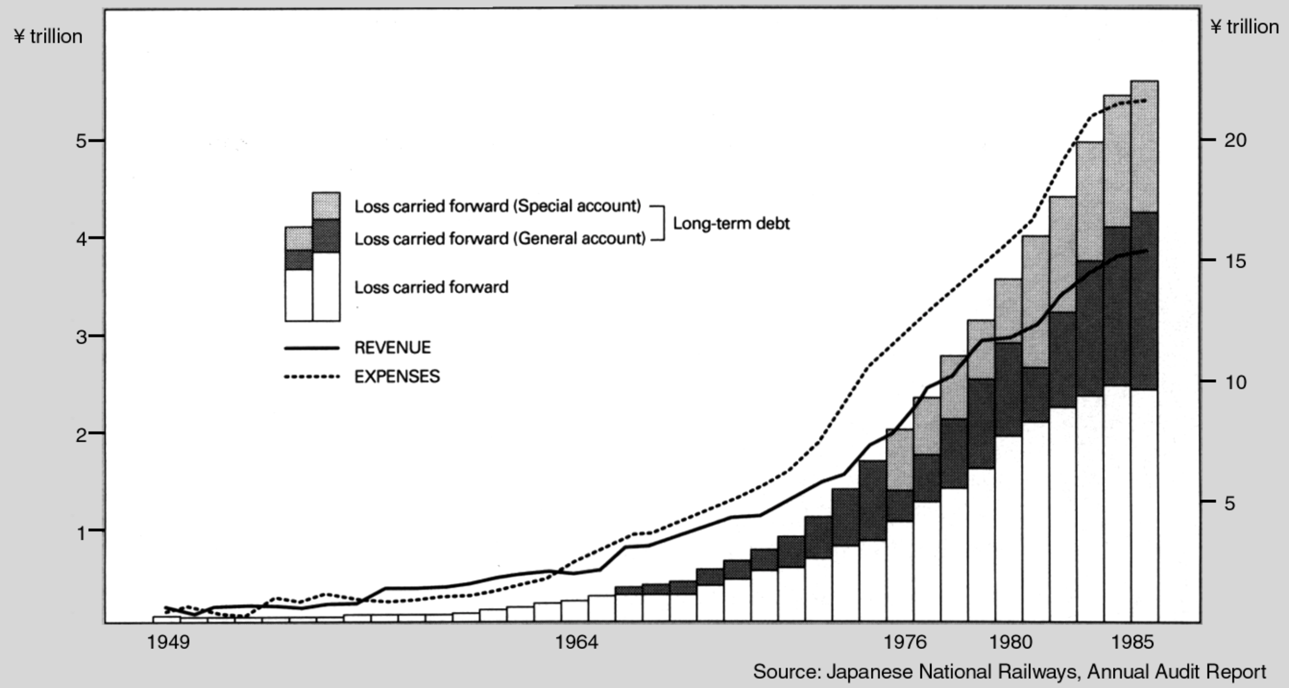
Japanese railways are strikingly different from their American and European counterparts in some areas. First, in Japan, the focus of railway transport is on passenger transport rather than freight. Second, railways have captured a relatively high share of passenger transport. Although railway share in terms of passenger-km of total passenger transport dropped in Japan by half from 45% in 1965 to 21% in 1990, the figure is still by far higher than the 6% in the United Kingdom, 6% in former West Germany, 10% in France and 1% in the USA (Table 1).

Although Japan at first lagged behind the USA and Europe in the field of automobile transport, its rapid switch to the car starting in the late 1960s lead to the abandonment of local railway routes totalling 340 kilometers from 1970 to 1979. However, private railways that have maintained sound operations continue to be a major means of transport for commuters in the three major metropolitan areas centered around Tokyo, Nagoya and Osaka. Looking at transportation between cities, six Japanese Railways (JR) Group passenger railways which were set up in 1987 by the division and privatisation of the Japanese National Railways (JNR) play an important role, competing with other means of transport like airlines and bus services connecting cities.

The greater part of Japan is mountainous, with some flat land along the Pacific coast where many densely-populated cities are concentrated to form the Pacific-coast megalopolis. This corridor is suitable for railway transport as proved by the Tokaido Shinkansen Superexpress, and the densely-populated Tokyo, Nagoya and Osaka districts are big markets for railways. The Japanese transport market actually favours railways.

However, JNR plunged into financial difficulties from the 1970s through the 1980s and was on the verge of bankruptcy. In 1987, the Japanese government divided the company into seven private companies to reorganize the country's largest single railway network. How did JNR, which had played an important role in transport between and inside large cities recover from the difficulties? It was reborn and regained public confidence as seven companies of the Japanese Railways (JR) Group. This article explains the background

Figure 1 Financial Performance of the JNR



Source: Japanese National Railways, Annual Audit Report

Table 1 Trends in Transport Volume by Transport Facilities in Selected Countries (Passenger Transport)

(Unit: 100 million passenger-km)

Country	Transport Facility \ Year	1965	1970	1975	1980	1984	1985	1986	1987	1988	1989	1990
Japan	Japan Railway (JR) Group	1,740 (45)	1,897 (33)	2,153 (33)	1,931 (25)	1,942 (26)	1,975 (23)	1,983 (22)	2,047 (22)	2,176 (22)	2,227 (21)	2,355 (21)
	Private railways	814 (21)	991 (17)	1,085 (15)	1,214 (15)	1,302 (16)	1,326 (15)	1,365 (16)	1,401 (15)	1,442 (14)	1,461 (14)	1,498 (14)
	Buses	801 (21)	1,029 (18)	1,101 (16)	1,104 (14)	1,031 (12)	1,049 (12)	1,016 (12)	1,029 (11)	1,072 (11)	1,091 (10)	1,104 (10)
	Passenger vehicles	406 (11)	1,813 (31)	2,508 (35)	3,213 (41)	3,656 (44)	3,844 (45)	3,932 (45)	4,378 (47)	4,820 (48)	5,353 (50)	5,524 (50)
	Domestic passenger ships	34 (1)	48 (1)	59 (1)	61 (1)	58 (1)	58 (1)	57 (1)	59 (1)	57 (1)	60 (1)	63 (1)
	Domestic airlines	29 (1)	93 (1)	191 (3)	297 (4)	335 (4)	331 (4)	353 (4)	385 (4)	411 (4)	471 (4)	516 (5)
	Total	3,825 (100)	5,872 (100)	7,107 (100)	7,820 (100)	8,324 (100)	8,582 (100)	8,706 (100)	9,293 (100)	9,977 (100)	10,663 (100)	11,060 (100)
UK	Railways	349 (10)	356 (9)	350 (9)	350 (7)	350 (7)	360 (7)	370 (7)	390 (7)	410 (7)	400 (6)	410 (6)
	Roads - public vehicles	630 (19)	560 (14)	550 (14)	450 (9)	420 (8)	420 (8)	410 (7)	410 (7)	410 (7)	410 (6)	410 (6)
	- private vehicles	2,330 (70)	3,140 (77)	3,124 (77)	4,070 (83)	4,470 (84)	4,530 (84)	4,760 (85)	5,110 (85)	5,280 (85)	5,690 (87)	5,610 (87)
	Airlines	16 (1)	19 (–)	20 (–)	30 (1)	34 (1)	36 (1)	37 (1)	40 (1)	46 (1)	50 (1)	50 (1)
	Total	3,325 (100)	4,075 (100)	3,940 (100)	4,900 (100)	5,270 (100)	5,350 (100)	5,580 (100)	5,950 (10)	6,140 (100)	6,540 (100)	6,480 (100)
West Germany	Railways	406 (11)	392 (8)	392 (7)	410 (7)	396 (7)	435 (8)	421 (7)	400 (7)	418 (6)	426 (6)	445 (6)
	Public road transport	512 (14)	584 (13)	577 (13)	741 (12)	700 (12)	623 (10)	617 (10)	613 (9)	615 (9)	614 (9)	610 (9)
	Private passenger vehicles	2,674 (74)	3,506 (77)	4,054 (78)	4,703 (79)	4,841 (80)	4,816 (80)	5,103 (81)	5,313 (82)	5,556 (83)	5,634 (83)	5,938 (82)
	Airlines	33 (1)	66 (2)	89 (2)	110 (2)	118 (2)	127 (2)	130 (2)	147 (2)	157 (2)	166 (2)	184 (3)
	Total	3,625 (100)	4,548 (100)	5,212 (100)	5,964 (100)	6,061 (100)	6,001 (100)	6,271 (100)	6,470 (10)	6,746 (100)	6,840 (100)	7,207 (100)
France	National railways	383 (21)	410 (12)	507 (12)	545 (11)	602 (11)	621 (10)	599 (10)	600 (9)	634 (9.5)	640 (9.3)	622 (10)
	Roads	–	3,000 (87)	3,700 (87)	4,490 (88)	4,750 (88)	5,320 (89)	5,550 (89)	5,760 (90)	5,970 (89.8)	6,130 (89.3)	6,270 (89)
	Airlines	5.2 (–)	17 (1)	27 (1)	46 (1)	38 (1)	40 (1)	40 (1)	44 (1)	45 (0.7)	97 (1.4)	89 (1)
	Total	–	3,427 (100)	4,234 (100)	5,081 (100)	5,390 (100)	5,981 (100)	6,189 (100)	6,404 (10)	6,649 (100)	6,867 (100)	6,981 (100)
USA	Railways	283 (2)	175 (1)	162 (1)	183 (1)	185 (1)	193 (1)	191 (1)	198 (1)	209 (1)	210 (1)	209 (1)
	Buses	383 (2)	407 (2)	402 (2)	433 (2)	436 (2)	410 (1)	381 (1)	367 (1)	370 (1)	390 (1)	370 (1)
	Passenger vehicles	13,155 (89)	16,508 (87)	18,729 (86)	20,328 (83)	23,881 (83)	23,881 (82)	23,487 (80)	24,053 (80)	25,519 (81)	26,230 (81)	26,709 (81)
	Coastal services	50 (–)	64 (–)	64 (–)	64 (–)	–	–	–	–	–	–	–
	Airlines	935 (6)	1,909 (10)	2,381 (11)	3,465 (14)	4,235 (14)	4,665 (16)	5,144 (18)	5,494 (18)	5,567 (17)	5,580 (17)	5,760 (17)
	Total	14,806 (100)	19,063 (100)	21,738 (100)	24,473 (100)	27,974 (100)	29,149 (100)	29,203 (100)	30,112 (10)	31,665 (100)	32,410 (100)	33,049 (100)

Sources: Railway Statistics '93 (Japan Transport Economics Research Centre)

Notes:
1. Figures for Japan are for the fiscal year (April to March), while figures for other countries are for the calendar year (January to December).
2. Figures for airlines contain both regular and irregular services. Figures for passenger ships after 1975 also include irregular services.
3. Railways for the UK include national railways, subways in London and other railways.
4. Passenger vehicles for West Germany represent private passenger cars.
5. Figures in parentheses represent shares.
6. Figures are rounded to the nearest whole number, meaning that the sum total is not always equal to the figure in the Total column.

and recovery and illustrates the railway management lessons learned from the reform of the national railways.

2. Recovery through division and privatisation

JNR maintained a surplus from 1957 until it went into the red at the settlement of accounts in fiscal 1964. After that, the company continued operating in the red, and its accumulated loss and debts caused by the loss expanded rapidly (Fig. 1). During this period, the Japanese government did not make up the loss but suspended part of JNR's long-term debt in 1976 and 1980 as part of a financial rehabilitation project. These moves had no effect at all, and the rehabilitation ended in failure.

JNR's long-term debt hit ¥23,561 billion at the end of fiscal 1985. Under pressure to control and eliminate the financial burden generated by JNR, the government decided to restructure the national railways.

Some scholars criticized the government, insisting that the huge JNR accumulated debt would not have been incurred if the government had written it every 2 or 3 years like the British and German governments. However, from a different point of view, this gigantic visible debt underscored the need to reform JNR. If the government had frequently written off the accumulated debt, the Japanese would have never thought it necessary to reform the state-owned railways.

The success of private railways, which was limited to large metropolitan areas, also pointed the way to reform JNR. Private railways operating in densely-populated metropolitan areas ran at a surplus and met the transport demand such areas. In this regard, they served as the big stimulus for reform.

The purpose of the reforms was to enable JNR to operate independently without a loss or relying on government subsidies. In 1982, the Second Ad Hoc Commission on Administrative Reform, an advisory body to the prime minister, submitted a report urging the government to liquidate JNR's accumulated debt and reorganise and privatise JNR. Based on the report recommendation, Supervisory Committee for JNR Reconstruction was set up in June 1983 to discuss and draft a plan for division and privatisation of JNR. The committee submitted a final report in July 1985 to the prime minister entitled "A View on JNR's Reform—Paving the Way for Railways in the Future".

The basic premise of the Ad Hoc Commission's recommendation was to apply measures similar to those used in relief of private companies falling into financial trouble with debts under the Corporate Reorganisation Law*[1]. This recommendation created a national controversy. At first many people were strongly opposed to privatisation of JNR, but later, a large majority recognised that JNR could not prevent political intervention and achieve independent and efficient management if it continued as a state-owned corporation. JNR's privatisation was seen as unavoidable by the time the Supervisory Committee for JNR Reconstruction was established.

Subsequently, the focus of discussion shifted from whether JNR should be divided or not, and if so, how to divide it, how to cut the number of employees, and actual measures for its reorganisation. The people most opposed to division of JNR were the labour unions and residents in rural areas. The labour unions were afraid of losing their power because their national organisation would be cut into pieces by division of JNR; local residents worried that unprofitable local lines supported by government subsidy might be abolished.

Two methods of dividing JNR were examined: splitting it into a passenger transport company and a freight transport company, or dividing it into several local railway companies. In either case, a sharp reduction in employees was seen as unavoidable. The government asked central and local governmental agencies and large companies to accept JNR employees who would lose their jobs, and transferred employees who would not agree to move to other companies to the Japanese National Railway Settlement Corporation, a liquidation company set up to take over the JNR long-term debt and assets needed for railway operations. As a result, the number of JNR employees dropped from 280,000 at the beginning of fiscal 1985 to 200,000.

Various proposals were made concerning division of JNR's passenger transport business, ranging from division into two or three companies to establishment of many district local railway companies. Finally, the government adopted a plan to divide it into six regional companies by splitting the country into six districts; three districts in Honshu (the main island), and Hokkaido, Shikoku and Kyushu.

JNR's nationwide freight transport business which was of questionable profitability was taken over by one new freight transport company called Japan Freight Railway Co. which was supposed to pay the six JR passenger transport companies costs for using tracks other than tracks exclusively for freight use.

It was also decided that a shinkansen Holding Corporation would be set up to manage all the shinkansen lines including the most profitable Tokaido Shinkansen and other newer lines.

Table 2 Management Resources of JR Group Companies

	JR Hokkaido	JR East	JR Central	JR West	JR Shikoku	JR Kyushu	Total
Number of Employees (100 people)	130	896	252	534	49	150	2,011
Operation-km of passenger transport railways (100 km)	25	75	20	52	8	22	203
Volume of passenger transport (100 million passenger-km)	36	994	385	454	15	69	1,954
Assets (¥10 billion)	26	364	54	141	10	34	629
Debt taken over from JNR (¥10 billion)	—	316	32	114	—	—	461
Amount of funds (¥100 million)	62	—	—	—	19	37	118
Capital (¥100 billion)	146	2,877	1,608	1,486	55	222	6,394

Note: Figures are rounded to the nearest whole number, meaning that the sum total is not always equal to the figure in the Total column.

Management Resources of Japan Freight Railway

Number of employees (100 people)	125
Operation-km (100 km)	97
Number of stations dealing with freight	300
	(13 additional acting bases)
Transport volume (million tonne)	58
Assets (¥10 billion)	22
Debt taken over from JNR (¥10 million)	16
Capital (¥100 million)	323

This holding corporation was supposed to collect rental fees for Shinkansen tracks from JR companies operating these lines, based on their sales, to maintain profitability of the Shinkansen.

The criterion for dividing JNR's passenger transport business was ensuring that each JR passenger transport company could start operations with a balance between income and outflow. To meet this criterion, both profitable and unprofitable lines should have been allocated to each JR company. As a result, the allocation of service area to each company was not based on natural geographical districts*2. Research was conducted on trips made using JNR's railroad network, and the service areas were divided to ensure that a high percentage of trips would be completed within one service area. Thus, a plan to establish six service areas was adopted.

Since differences in earnings between the six companies could be expected to widen, part of JNR's long-term debt was assigned to the three companies on Honshu expected to generate sufficient earnings, while funds for management stability were provided for the remaining three companies based in the other three islands. These companies were expected to show losses that could not be made up by earnings. This move was designed to improve the management efficiency of the companies expected to show losses and stimulate their incentives. In this regard, it was better than the previous measures by which the government covered the losses after the companies actually fell into the red.

In April 1987, JNR made a fresh start as six JR passenger railways and one freight railway (Table 2). Initially, the mass media was pessimistic about the JR prospects. The majority of scholars specializing in transport economics were opposed to the government's plan to divide and privatise JNR, and only a few agreed with it. However, the JRs' subsequent business results have been much better than expected.

Note *1 When the JNR Fare Revision Bill was discussed in the Diet in 1972, I attended a meeting of the Standing Committee on Transportation, House of Representatives as an expert witness and emphasized that JNR should be reconstructed as soon as possible by applying the ideas in the Corporate Reorganisation Law.

Note *2 In the United Kingdom, about 120 private railways were reorganized into four groups in a similar manner in 1920.

Table 3 Estimated and Actual Results in Transport Volume and Operating Revenue by Six JR Passenger Transport Companies

		1987	1988	1989	1990	1991
JR Hokkaido	Estimated transport volume	36.1	37.6	36.3	35.2	34.0
	Actual transport volume	39.2	44.6	43.7	46.3	48.0
	Estimated passenger revenue	606	668	687	706	726
	Actual passenger revenue	726	812	809	858	895
JR East	Estimated transport volume	994.1	992.8	996.9	997.4	995.8
	Actual transport volume	1044.9	1098.0	1131.9	1197.7	1259.7
	Estimated passenger revenue	13175	13449	14084	14384	14581
	Actual passenger revenue	15351	16127	16728	17819	18758
JR Central	Estimated transport volume	385.0	383.4	382.4	381.6	380.6
	Actual transport volume	411.5	450.9	463.0	510.5	521.1
	Estimated passenger revenue	7848	8036	8243	8464	8586
	Actual passenger revenue	8683	9659	9995	10974	11264
JR West	Estimated transport volume	454.2	453.9	453.8	453.7	453.6
	Actual transport volume	457.8	482.3	488.9	521.4	536.9
	Estimated passenger revenue	6845	7076	7318	7580	7846
	Actual passenger revenue	7470	7946	8231	8796	9018
JR Shikoku	Estimated transport volume	15.2	16.3	15.8	15.3	14.8
	Actual transport volume	16.7	21.2	20.3	20.7	21.2
	Estimated passenger revenue	228	261	267	274	281
	Actual passenger revenue	306	407	410	449	430
JR Kyushu	Estimated transport volume	69.4	67.6	65.9	64.3	62.7
	Actual transport volume	76.6	79.0	78.9	79.9	83.3
	Estimated passenger revenue	975	1000	1028	1058	1088
	Actual passenger revenue	1266	1359	1297	1314	1365

(Unit: Transport volume in 100 million passenger-km, passenger revenue in ¥100 million)

3. Success of JNR's reforms

I predicted that railway operations in Japan would change drastically as a result of reform of JNR, but my opinion was criticized by those who believed JNR's management system based on government support would never change. However, the JR's business results after the division and privatisation have exceeded even my expectations.

Initially the Supervision Committee for JNR Reconstruction made very conservative estimates of the JR's business results after the reform. Table 3 shows the comparisons between estimated transport volume and earnings and actual results of the transport divisions of the six JRs. The committee's modest expectations can be clearly seen. It estimated that transport volume by each of the six JRs would remain flat or drop slightly and that fares would have to be raised by a few percent annually after 1987 to guarantee earnings. However, it should be noted that contrary to the estimate, actual transport volume expanded. Annual average growth of

Table 4 Trends in Business Results of Seven JR Companies (¥100 million)

Item	1987	1988	1989	1990	1991	1992
Operating revenues	36,330	38,992	40,526	43,538	45,307	45,537
Operating profits	3,523	4,228	4,025	4,127	6,914	9,080
Pre-tax profits	1,515	2,118	2,684	3,876	3,063	2,330
Net income after tax	500	889	1,601	1,480	1,565	1,264

Source: Transport, Vol. 42, No. 10, October 1993, Ministry of Transport.
Figures for fiscal 1992 were added by the author.

Table 5 Settlement of JR Accounts

Settlement of JR Accounts in FY91 and FY92 (¥100 million)

Item	JR Hokkaido		JR East		JR Central		JR West		JR Shikoku		JR Kyushu		Japan Freight Railway		Total	
	FY91	FY92	FY91	FY92	FY91	FY92	FY91	FY92	FY91	FY92	FY91	FY92	FY91	FY92	FY91	FY92
Operating revenues	1,063	1,054	19,499	19,808	11,307	11,105	9,172	9,225	510	512	1,604	1,672	2,152	2,161	45,307	45,537
Operating expenses	1,546	1,523	15,951	15,420	8,430	7,058	7,894	7,782	601	623	1,886	1,947	2,085	2,105	38,393	36,458
Operating profit and loss	483	468	3,548	4,387	2,876	4,047	1,278	1,443	90	110	281	274	66	55	6,914	9,080
Non-operating revenues	518	485	280	227	211	163	114	124	162	149	330	314	11	8	1,626	1,470
Non-operating expenses	15	3	2,747	3,606	1,917	3,533	732	1,009	0	1	6	3	58	62	5,475	8,217
Recurring profit and loss	20	13	1,080	1,009	1,170	676	661	557	71	38	42	35	19	2	3,063	2,330
Extraordinary revenues	170	8	231	350	31	12	157	298	20	29	16	2	11	8	636	707
Extraordinary expenses	178	15	222	330	28	10	151	286	21	32	24	0	8	3	632	676
Pre-tax profits	13	6	1,089	1,029	1,173	678	667	569	70	35	34	37	22	6	3,068	2,360
Provision for taxes	6	3	518	459	609	344	303	250	31	13	15	18	16	5	1,498	1,092
Net income after tax	6	2	570	569	563	333	364	319	38	22	18	18	6	1	1,565	1,264
Current assets	476	548	2,235	2,131	2,780	2,547	1,747	2,014	344	222	822	753	532	359	8,936	8,574
Fixed assets	2,960	2,945	65,832	65,102	59,303	59,505	21,224	21,050	1,202	1,374	3,422	3,463	1,880	2,136	155,823	155,575
Management Stabilising Fund	6,822	6,822	—	—	—	—	—	—	2,082	2,082	3,877	3,877	—	—	12,781	12,781
Total assets	10,258	10,316	68,067	67,234	62,084	62,053	22,971	23,065	3,629	3,679	8,122	8,093	2,412	2,496	177,543	176,936
Current liabilities	355	385	8,114	7,185	3,393	3,322	3,439	3,518	210	235	538	471	500	357	16,549	15,473
Fixed liabilities	445	470	54,881	54,609	54,923	54,742	17,145	16,942	155	162	507	528	1,455	1,679	129,511	129,132
(Total liabilities)	801	855	62,995	61,794	58,316	58,065	20,584	20,460	369	397	1,046	1,000	1,956	2,037	146,067	144,608
Capital stock	90	90	2,000	2,000	1,120	1,120	1,000	1,000	35	35	160	160	190	190	4,595	4,595
Legal reserve	2,502	2,502	996	1,016	551	563	565	575	1,009	1,009	2,953	2,953	153	153	8,729	8,771
Management Stabilising Fund	6,822	6,822	—	—	—	—	—	—	2,082	2,082	3,877	3,877	—	—	12,781	12,781
Other surplus	43	45	2,076	2,424	2,095	2,305	821	1,029	133	155	84	102	113	115	5,365	6,175
(Total shareholders' equity)	9,457	9,460	5,072	5,440	3,767	3,988	2,386	2,306	3,259	3,281	7,075	7,093	456	458	31,472	32,026
Total liabilities and shareholders' equity	10,258	10,316	68,067	67,234	62,084	62,053	22,971	23,065	3,629	3,679	8,122	8,093	2,412	1,496	177,543	176,936

(Note) Any fractional sum of less than ¥100 million was discarded.

transport volume by JR increased sharply from 0.6% during the 5 years before privatisation from 1982 to 1986 to 4.5% during the 5 years after the privatisation from 1987 to 1991.

What deserves special mention is that the JRs broke the record of 215.6 billion passenger-km, set in 1974 by JNR, only 2 years after the privatisation. The business boom in Japan from the late 1980s through the early 1990s certainly contributed to increased transport demand, but it should also be noted that JR made great efforts to encourage use of rail services. The JR reconstruction was ideal, because the expansion in transport volume allowed increased earnings without raising fares.

The volume of freight carried by Japan Freight Railway Co. also increased. Freight transport fell from 30 billion tonne-km to 20 billion tonne-km during the 5 years from 1982 to 1986, but increased by an average of 6.1% annually from 20 billion tonne-km to 26.7 billion tonne-km during the 5 years after the privatisation from 1987 to 1991. No-one expected this recovery in freight transport, although the business boom did contribute.

The increase in transport volume helped improve the JRs' profits and earnings. Combined profits and earnings for the six JR passenger transport operators and Japan Freight Railway are shown in Table 4. Operating profit expanded steadily with an increase in business income. Pretax profits in fiscal 1991 and 1992 and net income after tax in fiscal 1992 dropped, despite an increase in operating profit. This situation was the result of an increase in interest payments by three JR companies: East Japan Railway Co., Central Japan Railway Co. and West Japan Railway Co., because their purchase of the Tohoku, Joetsu, Tokai and Sanyo Shinkansen tracks, which they had rented from the Shinkansen Holding Corporation, was made by borrowing *3.

An outline of the settlement of accounts by the seven JRs is shown in Table 5. As can be seen in the table, Hokkaido Railway Co., Shikoku Railway Co. and Kyushu Railway Co. managed to record profits in pretax profit and loss, because their operating losses were covered by the management stability fund.

Note *3 The Shinkansen tracks were transferred to the three JRs at a replacement cost of ¥ 9.177 trillion calculated at the time of the transfer in October 1991.

4.Public stock offering

JR stocks were held by the government (JNR Settlement Corporation) when the JNR was privatised and reorganised in April 1987; the government initially planned to go public and list the JRs on the Tokyo Stock Exchange (TSE) in 1991 when they were expected to satisfy the TSE's requirements for listing. However, the plan was not carried out as scheduled.

The first obstacle was the slump in stock market. Since the Tokyo stock market began falling from its peak at the end of 1989 when it recorded a new high, and continued to be sluggish in 1991 and 1992, introduction of a large number of JR stocks might have had a bad influence on the market.

The second obstacle was how to handle the shinkansen tracks held by the shinkansen Holding Corporation and leased to three JRs. Central Japan Railway Co. which depended heavily on earnings from the Tokaido Shinkansen was facing problems caused by the shinkansen lease system. Under this system, the company could not keep internal reserves, and its nominal profit kept increasing because depreciation costs could not be included in expenditure. In addition, since the assets and liabilities of JR East, JR Central, and JR West might have been greatly influenced by the treatment of the shinkansen, each of the three companies bought the Shinkansen operating in its service area before offering their stock for public subscription.

JR East's 2 million stocks (half of its issued stocks) were eventually sold and listed on the TSE in October 1993. Stocks of JR Central and JR West will be listed soon. The privatising process will be completed in name and reality when all JR stocks held by the government are sold.

5.Why did JNR's reforms succeed?

As mentioned in above, the conditions in the Japanese transport market were far from disadvantageous to railways. Traditionally, Japanese trust and make full use of railway transport services. As shown in Table 2, the volume of passenger transport by Japanese railways dramatically outstrips that of European railways—Japanese railways did not lose their customers. JNR fell into difficulties because it failed to respond to the industrial structure after World War II, changes in the location of industry, concentration of population in large cities, migration of population between districts as shown by the expansion of sparsely-populated areas, changes in the transport market through improvement of roads and the shift to the automobile.

However, it is unfair to place all the blame on JNR's management. In areas that are rapidly losing population, railways had lost their relative advantage as a means of transportation for a long time. The JNR management recognized this, but was not allowed to abandon unprofitable lines for political reasons. In addition, the government completed construction of railways that were clearly unprofitable and forced JNR to operate them. Increased train fares were not allowed for fear of political fallout.

Thus, JNR could not avoid government intervention in its management because it was a state-owned company. While political intervention restricted JNR's decision making, the JNR management became blase about its monopoly of the Japanese transport market and came to take a narrow outlook. It did not respond to the more-competitive market by working out new management strategies, but instead tried to secure JNR's comparative advantage in the market by using government regulations, taxation and subsidy to control the growth of competitive means of transport.

This attitude by the JNR management was partly unavoidable because dual regulations on monopolies and public corporations were imposed on JNR, and the management had virtually no autonomy. In addition, since the government had the power to appoint the JNR president, it was useless to expect the JNR management to take aggressive measures to break the fetters of the monopoly regulations and work out new management strategies.

In 1971, the Council for Transport Policy decided on a co-ordinated transport scheme aimed at restoring the competitiveness of the JNR freight transport business which was the main cause of the deficit. The major pillars of the scheme were introduction of a weight tax for trucks and massive investment in modernisation of freight transport. However, these measures had no effect, and payment of the interest on loans for investment was left behind.

In November 1975, the National Railway Workers' Union went on strike for 8 days over the right to strike—the longest strike in its history. Contrary to initial expectations, the 8-day freight transport strike did not disrupt industrial activity nor everyday life at all. This shocked the JNR management and union but made people doubt the importance of JNR and take a more critical stance on JNR.

It was not that no-one in JNR was critical of the present state of JNR nor tried to improve it, and the JNR staff were competent. However, in a bureaucratic organisation where conservatism reigned, the minority opinion never became influential. Although management and cost-reduction policies aimed at increasing income were proposed, the conventionalism inside JNR prevented them from being achieved.

The reorganisation gave the JRs an opportunity to exert potential management skills through external pressure. It allowed the JR group of companies to do what they wanted do previously but could not within the framework of JNR. Such revitalisation was the most important key to the reform of JNR.

Some people thought it natural that the reforms have succeeded because of the government's careful measures such as abandonment of unprofitable local lines before privatisation, transfer of JNR's long-term debt to the JNR Settlement Corporation and a reduction in excess labour. However, these measures were not sufficient conditions for the success in the reforms but were only necessary conditions. Otherwise, so many people would not have been concerned about the future of the JRs before the privatisation.

There is no doubt that the government took the measures to ensure that the JRs would go into the black in the first year, but it should be admitted frankly that the corporate revitalisation, backed by the business boom at the time, helped the JRs continue to boost the transport volume annually after the second year and keep the balance in the black without the fare increase scheduled by the government.

6.Problems to be solved

Six years have passed since the privatisation, but some problems still remain to be solved to complete the reforms.

The first problem is how to settle the long-term debt that was transferred to the JNR Settlement Corporation. The long-term debt totals ¥25.6 trillion, consisting of ¥16.4 trillion of JNR long-term debt, the Japan Railway Con-

Table 6 Trends in JNR Long-Term Debt

	1987	1988	1989	1990	1991	1992	1993
JR	4.7	4.4	3.9	3.7	3.5	3.4	3.4
Shinkansen Holding Corp. (Railway Development Fund)	5.7	5.6	5.5	6.2	6.2	6.1	6.0
JNR Settlement Corp.	25.5	26.1	26.9	27.1	26.2	26.4	26.6

struction Public Corporation's debt from the construction of the Seikan Tunnel and the Honshu-Shikoku Bridge and pensions and other future expenses. It was decided that part of the huge debt would be settled by selling JNR real estate such as land and buildings transferred to the JNR Settlement Corporation and issuing stocks for new JR group passenger transport and freight transport companies, with the remaining debt shouldered by taxpayers.

JNR Settlement Corporation expected to earn about ¥300 billion through sales of land in fiscal 1987, the first year after the JNR privatisation. However, since Japan was on the crest of the so-called bubble economy, the contract price at the first open bid for the land was unexpectedly high and sale of JNR real estate by open bidding was criticised for boosting land prices. The corporation was forced to refrain from offering land by bids and had to sell the land to local governments for public purposes at more "reasonable" prices.

As a result, the income earned by the corporation through land sales in fiscal 1987 was only ¥132.9 billion, which did not relieve the burden of interest payments and resulted in increased borrowing. The price of real estate should be determined by open bid—if the price is controlled to prevent stimulating the price of nearby land, the one who benefits most is the buyer.

However, the government adopted this misguided approach and ordered the corporation to temporarily stop selling land and control the price. The government's order delayed the disposal of the land and brought down the selling price. When the bubble economy collapsed, a drop in demand for land and a sharp fall in prices further delayed settlement of the debt. Helped along by the government decision to delay sale of the JR stocks in response to a slowdown in the stock market, the long-term debt shouldered by the corporation is actually increasing, contrary to the initial plan. The trends in the long-term debts held by JRs, Railway Development Fund (former Shinkansen Holding Corporation) and JNR Settlement Corporation is shown in Table 6.

The JRs' long-term debt increased by ¥8.9 trillion at the beginning of fiscal 1993 due to the purchase of the Shinkansen tracks, but the long-term debt they inherited from JNR dropped by ¥1.3 trillion during the 6 years from fiscal 1987 when the JRs were set up.

Courtesy: Japanese National Railways Settlement Corporation

■ The 20-ha former Shiodome Freight Yard in central Tokyo awaiting Redevelopment

However, both the JRs and the government still face the big problem of how to settle the remaining long-term debt which totals ¥36 trillion.

The second problem is the future management of Hokkaido Railway, Shikoku Railway, Kyushu Railway and Japan Freight Railway. As mentioned above, it was decided that the operating losses for these three JRs would be covered by income earned by the management stability fund provided for them. This relief measure has worked well for several years since their establishment, but sufficient income to cover their operating losses may not be earned in the future, because the official discount rate has been reduced several times since 1992, and market interest rates are declining. The companies are likely to have current balance deficits if their operating losses increase with a drop in transport demand in a prolonged recession.

On the other hand, Japan Freight Railway faces problems in generating income, because there is severe competition in the freight transport market, and demand for freight railway is largely influenced by business conditions. In addition, it is getting harder to operate freight trains due to the lack of track capacity caused by an increase in short-distance passenger train services between cities by the JRs. Solving these problems will be a major challenge for Japan Freight Railway.

The third problem lies in the construction of the planned Shinkansen lines. People in local areas strongly want to have Shinkansen lines. However, since huge construction expenses are incurred, and earnings of existing local railways drop after completion of Shinkansen, the JRs are not enthusiastic about construction. Shinkansen will not yield profits but will increase the burdens for the JRs, although the central and local governments will bear a considerable amount of the cost of Shinkansen construction. Political interference in the management of the JRs must not be tolerated again, because it was the major cause of the deterioration of the JNR management. The JRs are no longer a state-owned railway but are a group of private companies. Those who understand this least may be politicians.

The fourth problem is labour-management relations. The labour unions cooperated with the JNR management to promote the reforms. Will a labour-management dispute and a dispute between the labour unions break out again after the reforms have succeeded and JR companies have proved themselves to be capable of operating independently? The labour unions will not act as they did before the privatisation, since, unlike public corporations, private companies can go bankrupt. The JRs will lose the users they won back if their transport services deteriorate due to a labour-management dispute.

7.Conclusion

The division and privatisation of JNR has been successful. Today, privatisation of railways is being planned and promoted worldwide, but when the JNR reforms were discussed in Japan, reorganisation of a state-owned railway company into private companies was viewed as a big experiment; there had been cases of nationalisation of private railways falling into financial difficulties.

In parallel with the privatisation of JNR, some measures were taken to reconstruct the management of the railway company, such as abandonment of unprofitable local lines, release of JNR from its enormous long-term debt, and reduction of excess labour by 80,000. Although the mass media was pessimistic about the future of the JRs, predicting that the reforms would not help restructure the railway company, the JRs have won back customers, increased transport volume and maintained sound management without raising fares for 6 years since privatisation.

Some people insisted that the JRs' success was a foregone conclusion due to prudent government measures. However, such opinions ignore the greatest merit that privatisation revitalized the JRs by allowing them to make full use of their management potential resources that existed but could not be utilized when JNR was a public corporation.

The JNR reforms have been an unexpected success, but they have not yet been completed. The JRs have both positive and negative problems to handle. The former includes the listing of the remaining stocks of JR East and the stocks of JR Central and JR West. The latter includes the settlement of the long-term debt held by the JNR Settlement Corporation. In addition, the three JRs in Hokkaido, Shikoku and Kyushu and Japan Freight Railway have some concerns for their future management.

Furthermore, another challenge for all the JRs is improving the profitability of their businesses other than railway transport. Each company must solve these problems steadily one-by-one.

The government must handle the management of 1,804 km of railways taken over by 39 private or third-sector companies among 83 unprofitable lines totalling 3,157 km separated from the JNR when it was privatised. Some have registered better business results than they did when they were operated by the JNR, but most continue to operate in the red. Handling these railways will be a major focus of the government's transportation policy in the near future. ■

Yukihide Okano

Professor Okano was born in Tokyo in 1929. He read economics at the University of Tokyo, and later studied at the Post Graduate School of Chicago University. In 1966, he became associate professor of transport economics at the University of Tokyo, and was promoted to professor 10 years later. He retired from the University of Tokyo and moved to Soka University in Tokyo in 1990. He is currently President of the Japan Society of Transportation Economics. As one of the most respected scholars in transport studies and public economics, he has written many books and plays an important role in various advisory bodies to the government.