RESTRUCTURING OF JNR AND ITS PROBLEMS

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Introduction

In April 1987, the JNR (Japan National Railroad) had been privatized/broke up and was reorganized into nine corporations, two special corporations and one foundation. This paper analyzes the restructuring of JNR.

For more than a century, railroads were the backbone of domestic transportation in Japan. With their vast size, they dominated the market of transportation. After 1960's, however, the development of auto-transport quickly eroded the dominance. In the process, internal and external problems such as serious debt of JNR, decline of rural railroad systems, flat demand of cargo transport and restrictive government regulations plagued the railroads.

On the other hand, while railroads are no longer the supreme transportation method of our time, they are still the leader in the market of urban transit and inter-city transportation which is with huge demands and the society is calling for more capacity and versatility. Whether railroads can fully exploit the advantage of their system to survive the environment of free competition will prove the effectiveness of JNR restructuring and other policies of deregulation.

I. Privatization and Break-up of JNR and Deregulation

The 8 Acts of JNR Restructuring which defines the terms of privatization and break-up of JNR provide, by their nature, deregulation of entire railroad system including private railroads. As is defined on JNR Act, JNR was established to improve the welfare of general public. Railroad Nationalization Act defined railroads as "the property of nation" and JNR Act defined with the implication of equating "nation" with JNR. JNR was a special corporation (tokushu houjin) established by the government, and was defiend as a public corporation, but essentially it was the government itself or its alter ego.(1)

The restructuring of JNR abolished this peculiar nature of JNR. The fact of its being a national railroad system was also abolished. Among 8 acts, JNR Restructuring Act of 1986 (The 87th law), which forms the basis of JNR restructuring, mandates the restructuring of JNR and states the purpose of the law as follows: "That railroad and related operations of JNR is out of control, and that current management of entire national system by a public corporation seems no longer able to assure the appropriate and healthy operation of the business makes it vital to establish a new management system capable of responding to the need in the area of transportation. It is also vital that under this management JNR is effectively going to fulfill the role of the basic method of transportation in Japan, for it is an urgent requisite to stabilize the life and economy of our people. Upon such understanding, this law defines the basic aspects of sweeping restructuring of JNR's management to establish the effective management that can respond to such needs. (The first clause.)"

Replacing the "improvement of welfare of general public" is "responding to the market needs and establishment of effective management." Another act among eight acts is Application Act of JNR Restructuring Act and Others of 1986 (The 93rd law). The law repeal the JNR Act, Railroad Construction Act and JNR Fare Act. The definition of railroads belonging to the government was hereupon denied. The government's responsibility of constructing rural railroad system has vanished and so has the fare decision procedure that involved the legislature, although spending of the budget for construction of rural railroads by the Railroad Construction Act was already frozen since 1980. Even the process of fare decision was already relaxed from one that requires the legislature's approval to one that, for the time being, let JNR initiate fare prices upon its own discretion, by the revision of JNR Fare Act that went into effect in December, 1977. JNR had to obtain the approval of the Minister of Transportation and there was certain cap on the fares they could propose, however.

Another of restructuring related acts is Railroad Business Act (the 92nd law) which governs both the former JNR and the private railroads. This law repeals the Local Railroad Act which governed private railroads only. The Railroad Business Act defined those who do business with railroads constructed or owned by themselves as first-class (entity,) those who do business with railroads owned by the third party as second-class and those who construct railroads with the purpose of selling them or providing the right of their proprietary use as third-class. Railroads have the nature of demanding big amount of track cost, the fact which lengthened the lead time of investment. This law expanded the possibility of business development by legally separating the track cost which is part of the infrastructure and operation which comes on the top of the pathway.

Most railroads of the past will be the first-class entities, but Nihon Kamotsu Tetsudo (Japan Freight Railroad) which is spun-off from JNR by the restructuring/break-up will be a second-class entity. Tetsudou Koudan (Railroad Construction Corporation) and Hon-Shi Kodan (Bridge Construction Corporation) should be third-class entities though they are exempt from the classification by law. Railroad Business Act also simplified the rules of Local Railroad Act drastically. Procedures that needed approval now can be done with submission or confirmation. Establishment of Plan Manager System enabled qualified personnel of businesses to assume responsibilities or do inspections (instead of government or JNR personnel). Railroad Marketing Act (Tetsudou Eigyo Hou) will remain, so railroads will be basically governed by Railroad Marketing Act and Railroad Business Act.

II. From Monopoly to Competition

The Collapse of JNR Finance

Short term reason that led to the privatization/break-up of JNR was its massive deficit. The long term and essential reason that brought the deficit was the quick erosion of monopoly it enjoyed. It was only after fiscal year of 1964 that financial condition of JNR worsened. The deficit of 30 billion yen was recorded this year, but, since JNR had retained earnings, the deficit could have been temporary if operation was turned profitable. However, the deficit did not shrink but kept on growing until in 1966 when reserve evaporated and net loss begun to accumulate.

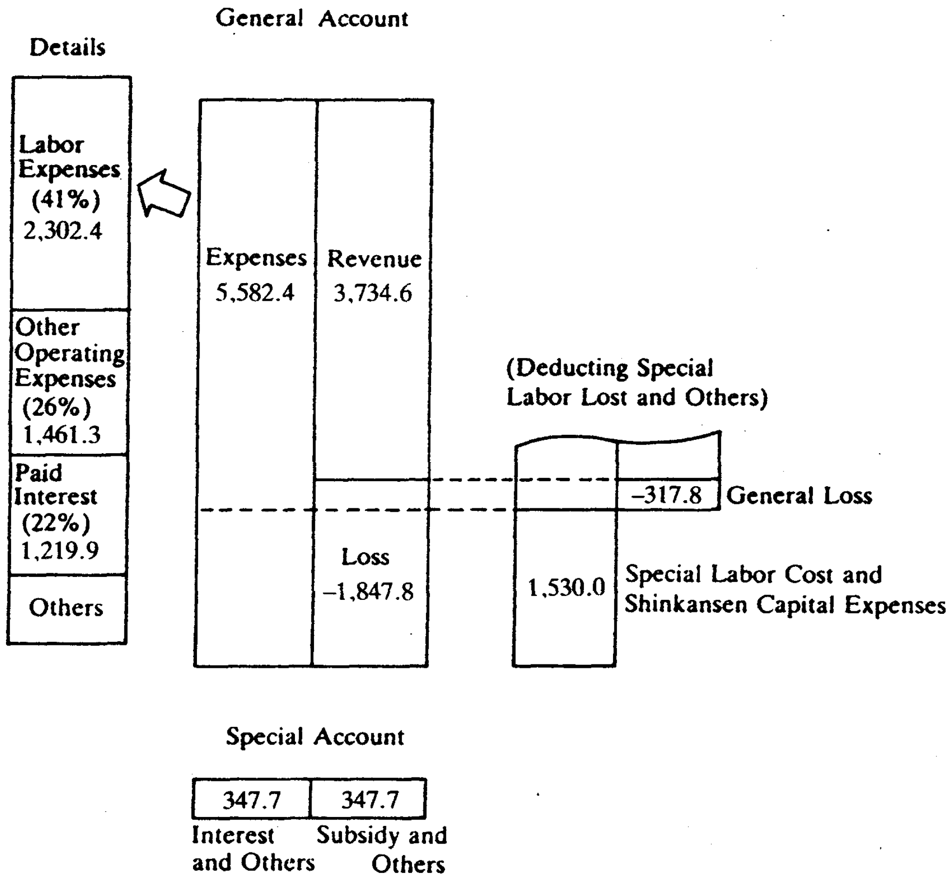
In 1971, a huge operating loss before depreciation of 234 billion yen was recorded. The loss continued and after the oil crisis deficits of about one trillion yen were constantly recorded. The balance was mainly paid by incurring debts. Funds for capital investments to return JNR back to profitability was also raised by borrowings, and long term liability snowballed. Because the ways of raising funds were limited, dependence on debt increased, and interest payment came to disturb the management. The government suspended the interest payment on debts in 1976 and in 1980, but its relief effect was only temporary.

Meanwhile, three trials including the passage of Special Act for Promotion of JNR Financial Recovery were made. These rescue plans were also capital investment plan that adopted policies of long term plans designed years back. The basic thinking was to invest for modernization to bring cost down while improving service to increase volume of transportation, thus improving the bottom line. Actually, inflation and increasing labor cost pushed up the total cost, growth in the volume of transportation remained lackluster, competition from autos and airlines got fiercer and all three attempts failed.

That they kept on executing essentially the same capital investment during 1970's as the way to the recovery worsened the financial condition of JNR. The problem here is that they could not adjust to the changing economic environment brought by the oil crisis, and that they stuck with expansion while most private companies were cutting back their operations. Another problem is that subjects of investment were too much fragmented and there was not a concept of investing specifically into the field that can exploit the full advantage of railroad against the competition.

From 1980, a new rescue plan backed by JNR Recovery Act and called Management Improvement Plan was launched. Sheddling off of unprofitable operation such as closure of rural lines, establishment of discount fares and cargo division's retrenchment from yard-system was executed. This recovery plan which attempted to scale down and balance the operation was indeed different from the past plans, but lacked the perspective to revive the railroad operation itself.

Figure-1 Overall Balance (billion yen)

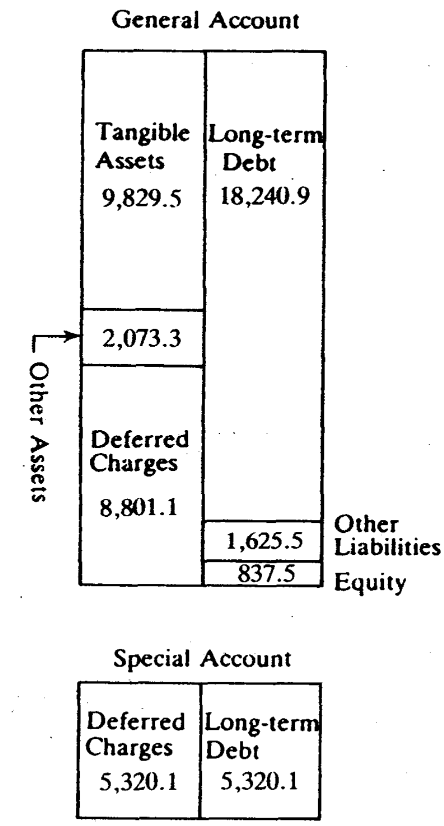


(Source: Report of JNR Audit 1985)

Figure-1 shows the income statement of fiscal year 1985. The net loss is 1,850 billion yen. The loss amounts to staggering 5 billion yen per day and 200 million yen per every one hour. The expense includes special labor cost and Tohoku & Joetsu Shinkansen capital investment, which are expenses not under responsibility of JNR management. Excluding such expense, the loss shrinks to 300 billion yen. Special labor cost was incurred by the JNR accepting employees of Colonial Railroad employees and Shinkansen capital investment is the investment which JNR did not approve. These outlays were approved by the government, though it is not clear if JNR can be totally free of all the responsibility on these expenditures. Figure-1 shows special account along with general account. The special account shows the frozen debt of the past. The figure shows that the interest payment of 350 billion yen for the debt was paid with the government subsidy of the same amount.

Figure-2 Balance Sheet

(billion yen)



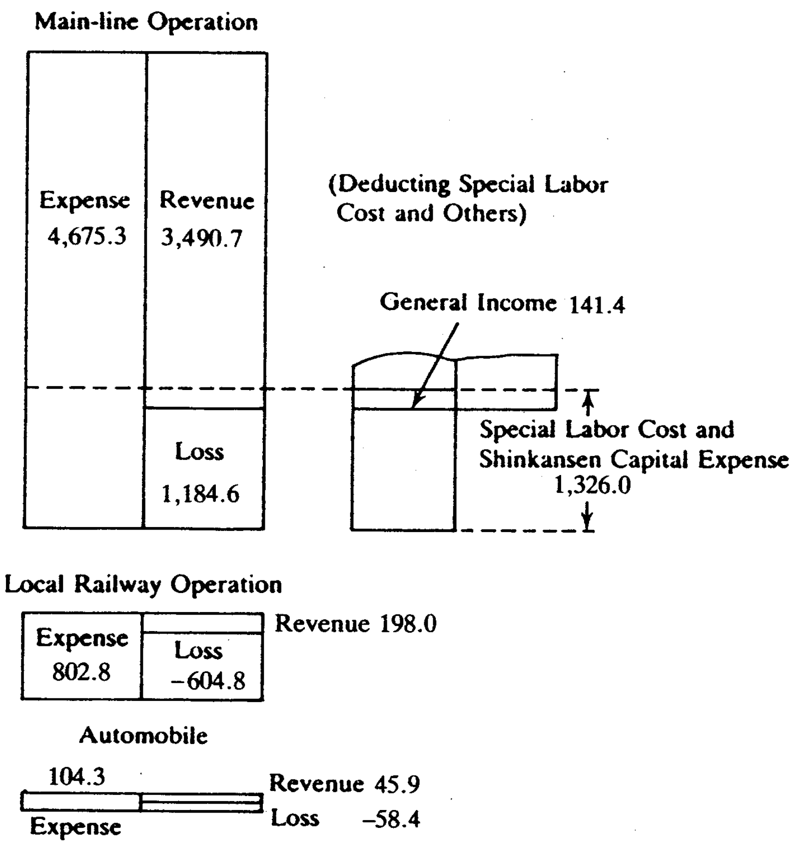
(Source: same as figure-1)

Figure-2 shows the balance sheet of 1985. Long term debt composes 88% of total liability. This is the result of financing not only the loss but also the most part of investment with debt. Paid-in capital composes minor part of liability and suggests that the government have been reluctant in providing any financial aid to JNR for a long time. Accumulated loss including the frozen debt reaches 14,100 billion yen and long term liability hit 23,600 billion yen. This means that out of over 23 trillion yen of debt 14 trillion is already consumed to pay off losses. Remaining 9 trillion is converted to some form of equipment.

Unprofitable Operation and Source of Loss

To see which operation is causing the loss of the fiscal year, Figure-3 lists the financial results of divisional accounting. Divisional accounting is a form of disclosure that JNR publish by calculating the cost of each division and comparing it to the financial statement of entire company. The figure shows the individual results of main-line railway, local railway and automotive. Main-line railway includes railways operated in and between major cities, consists about half of length of line operated and handles 90% of total volume of transportation. While mail-line railway is well positioned to take advantage of the railway system, the opposite applies to the local railway with low density of transportation. This kind of classificaiton certainly has the effect of dramatizing the difference, but it is effective in comprehending what action is required in managing railroads.

Figure-3 Railways Income (billion yen)



(Source: same as figure-1)

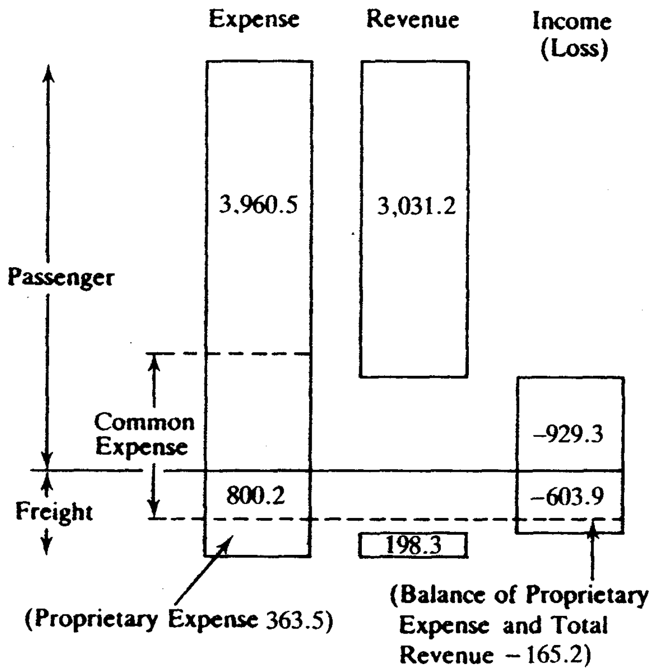
Absolute amount of loss is bigger with mail-line railway but the proportion of loss is bigger with local railway. Excluding the expense for special labor cost, main-line railway can even turn out operating profit. The conditional budget balancing of main-line railway that was intended by Management Improvement Plan was accomplished ahead of time and surpassing the financial goal. Contrary to the general belief that, judging from the past three failures, predicted the plan's goal as hardly realistic, JNR management underwent determined rationalization to succeed. The balance of local railway remains unfavorable because of declining volume of transportation and revenue is more than offsetting the cost cutting efforts that depends on rationalization. During the past years, the loss incurred by the local railway contributed to about 30% of the total loss. It is definitely a source of red ink. The decline in volume of transportation in this division is certainly caused by shift of population resulting by the rapid growth and development of bus transportation, but the fundamental reason should be the proliferation of automobiles that began in 1960's. Mass production reduced the relative price of autos and they quickly spreaded into the rural area. Trucks for agricultural goods and low-cost/low-displacement autos contributed to the generalization of multi-vehicle households and price competition between manufacturers popularized motorbikes.

Railroads and other public transportation can hardly beat the convenience of cars particularly in the local area. When road construction fee and insurance fee was paid by vehicle owners, automobile society was firmly founded. The monopoly that railroads enjoyed all but disappeared. The change affected equally JNR, private railroads and buses. Public transportation had to entice "transportation poors" who did not have their own means of transportation, but even them had such government subsidized alternatives such as school buses and buses to take patients to hospitals.

Deprived of its monopoly and under the free market environment, local railway could not even retrench because of nation-wide unified fare system and its management being out of control. On the other hand, private railroads survived, for they switched some of its operation into bus at early stage of change and could provide different fares in different regions.

Another source of red ink that is comparable to the local railway is freight. Because railroads provide transportation service to both passengers and cargo, cost calculation provides independent financial results. Figure-4 shows the results of passenger and freight. The figure is not that of Divisional Accounting, so the total does not correspond to that of entire JNR. In calculating the cost, total expense is divided into those of passenger and freight operations and common expense. Common expense is divided appropriately and added to passenger/freight expense, forming the total cost. Comparing these cost with revenue is the figure-4. Both passenger and freight operations is unable to cover the cost, but freight cannot even cover its proprietary expense.

Figure-4 Income of Passenger/Freight Operation (billion yen)



(Source: same as figure-1)

Balancing the revenue and this proprietary expense was one of objects of Management Improvement Plan. There is little sense in offsetting the revenue with proprietary expense which is only a part of total expense. That the revenue cannot even cover part of the expense tells how seriously unprofitable the operation is. Main-line railway could balance the revenue and total expense but freight could not even balance the revenue and proprietary expense.

JNR used to dominate the market for domestic freight. Right after the war, shipping industry remained almost destroyed, dominance of railroad was complete and it was put on the priority list of industrial development by the government along with coal and steel. When domestic shipping rebuilt itself, market of large-volume long-distance freight went to them for economical reason. Afterwards, the balance between shipping and land transportation stabilized with each industry obtaining its own share of the market that differed by the distance of freight. JNR still enjoyed leadership in the land transport market. At the beginning of high growth era, it did not have enough capacity to accommodate the sudden outburst of freight, resulting in the inventories piled up in stations.

The dominance came to an end when private companies began to provide scheduled truck service and investment for road construction that aimed to smooth the flow of goods within the country began. Since truck transportation business required small amount of capital to initiate, very competitive industry under free market economy was born. JNR freight, which was founded on the assumption of having dominant market position had no chance against them. Some countermeasures were taken, but competitiveness remained weak. Freight operation quickly became unprofitable and shrunk its size.

Passenger operation did not become unprofitable, but in inter-city transport the name of the game changed from monopoly to competition. The market dominance cracked as domestic airline system, highways and highway buses flourished. Market with dominance is limited to railways in major cities. Cross-subsidization between profitable and unprofitable operations and between operation with market dominance and without it is now recognized as a problem to be solved by the management.(2)

III. Process of JNR Restructuring

Nationalization and Reformation After the War

Government Railroad, later to be renamed JNR, has been in existence for 114 years since the first railroad was constructed. In the days of Government Railroad, the principle of railroads being the property of government was not in place and private as well as governmental railroads were constructed and managed separately. Basic structure of JNR was established in 1896 to 1897 when railroads were nationalized. It was railroads bureaucrats represented by Masaru Inoue were that continuously voiced the necessity and pushed for the integration of railroad system. The basic idea was to rationalize an efficient system of transportation by achieving the economy of scale for it would bring the lower cost and fare. The goal was to achieve efficiency though it could naturally result in expansion of their own influence.

Military authorities also supported nationalization, but the support was something akin to treasury supporting any plan that raises revenue and there was no philosophical reason. Among businesses, Mitsubishi group opposed the move and the Foreign Affairs Minister Takaaki Kato, son in law of Mitsubishi's leader Yatarou Iwasaki, resigned in protest as a cabinet member. Eiichi Shibusawa also hesitated the move for it had the implication of helping private companies.

However, the government was under pressure to reduce the domestic distribution cost and exporting cost in order to improve the international balance of payment after the war with Russia. Mitsui group, another business group, realized this need and later Shibusawa and others went along with nationalization.

The price of 17 railroads were set at a relatively expensive level and though payments were reinvested into electric utility, heavy industry and others. Interest payment of the bond issued for the purchase, proved to be a heavy burden for railroads. Anyway, nationalization cemented the dominant position of railroads. At this stage Tetsudouin (Railroad Agency) was established, and as Railroad Accounting was spun off from Government General Accounting under the Imperial Railroad Accounting Act of 1899, the basic structure of JNR was established.

The independence from General Accounting was to be threatened when it was required to reimburse special military expense during the Second World War. This expenditure, overloading of the system during and after the war and damage caused by bombing brought number of problems to JNR management after the war. Right then, institution such as Mitsubishi Research Institute proposed to sell the JNR to the public but did not get enough support. After the disposition plan came the self-supporting plan. The plan had its model in similar entity in Soviet Union (хозрасчёт) and, reflecting the outcry of JNR officials, called for the financial independence that was weakened by the special military expense. The idea of the plan was already incorporated and assured in the revision of Imperial Railroad Accounting Act and was passed over into the argument on converting JNR into public corporation. It also spilled over and was adopted in internal management of automotive.

The reformation of railroad right after the war was required along the necessity to reorganize the Ministry of Transportation of which Bureau of Railroad was one of the branch office. In July of 1948, MacArthur report was submitted and railroad, along with salt and cigarettes, was suggested to be managed as public corporation. The idea of public corporation was introduced in 1920's in England, and the U.S.'s New Deal policy also adopted the idea. Independence movement of Germany's public entities after the First World War and trusts of the Soviet Union also involved similar idea of organization albeit under different name.(3)

Experiences shaped the concept and the form of public corporation. Its aim was to improve the efficiency of management by giving the entity autonomy and thus excluding the interference of politics and government. More precisely, policies such as prohibiting management decisions to be the subject of legislative discussion or to decide the wage and labor conditions between labor and management and escape the involvement of government were incorporated. Socialization of corporations separated the ownership and management of companies. They tried to apply the same feat on public entities.

However, the public corporation in Japan was introduced so as to preserve the Japanese bureaucracy that existed before the war. Protection of governmental structure was emphasized and efforts were paid not to change the old bureaucracy. Japanese public corporation that was born accordingly did not possessed enough autonomy and resulted in multi-phased problems of JNR.

From Rincho Report to Supervisory Committee's "Opinion"

It was in the end of fiscal 1980 when second Rincho (Special Government Inspection Group) after the war was organized.

It was formed to reduce the spending, for government budget was in trouble. Promoters of the group included treasury staffs, head of Government Management Agency (Gyousei Kanri Chou) Nakasone and business representatives who feared the increase in corporate tax. Each of them had different interest but after the effort to introduce general consumption (sales) tax under Ohira Administration collapsed, government reform seemed to be the biggest political issue of the time.

However, it was already obvious that merely reducing the spending could not balance the budget. Though the business' slogan of "saving the budget without tax increase" was often heard in the street, it was impossible to do so without any form of new tax. The fact remains true to this date.

To really balance the budget, one has to cut the appropriation outlay which kept on swelling since 1965.

The increased public investment that was aimed to offset the recession of 1965 resulted in the issuance of red-ink bonds which were issued to cover the interest payment. Issuing bonds to initiate public investment to create jobs at the time of recession and to recall those bonds when the economy picks up is the basic of economics and government finance. In reality, they could not stop the public investment nor cut off subsidies used to simulate the economy.

This happened because subsidies to specific area or industry formed a voting organization to elect certain Diet (Congress) members who began to protect those subsidies in the legislature. Diet was criticized for becoming the field for its members to simply exploit as much as they can and losing sight of what it should be doing. This problem of representative democracy surfaced in lots of other countries, too.

Rincho, which had business representatives within it, could in no way cut off those subsidies by nature of its birth. Though its chairman was a respected businessman with popularity among general public, he did not do anything that hurt himself (business) nor could he. On the other hand, the prime minister/ruling party leader, who got the leader of business at the spot with the promise of reforming the government, had to take some showy action to convince the public of his commitment. It was against this background that the red ink of JNR moved into the political limelight.

Simple argument summarized the source of national deficit at three K's (Kokutetsu=JNR, Kenpo=Health Care System, Kome=Food Management Law). Among them, JNR was the most appealing subject because of its magnitude and public sentiment against it. The 4th committee of Rincho played an active part and Privatization/break up of JNR became the biggest issue of Rincho report.

When restructuring of three public corporation, JNR, NTT (Nippon Telegraph & Telephone) and Tobacco & Salt Corp., was proposed, NTT was the first to jump on the bandwagon to accept the privatization while avoiding the break up. Tobacco & Salt Corp. did not resist the privatization either. JNR, however, resisted privatization to preserve itself and to protect the interest of certain party members.

Nevertheless, Restructuring Supervisory Committee, which was in charge of executing the suggestions of Rincho, was organized and new development took place. The committee was an organization totally independent from JNR, made discussion under the initiative of the Ministry of Transportation, and in July 1985 submitted a recommendation of privatization/break up (Opinion on JNR Restructuring) similar to that of Rincho. JNR, for its part, published its own reorganization plan (Basic Policy for Management Restructuring) in January 1985.

The plan accepted the privatization but contrasted sharply with reports of Rincho and the committee in rejecting the break up. The prime minister Nakasone practically fired the JNR chairman Nisugi, reshuffled more than half of the top officials at JNR and put Sugiura, the bureaucrat of the Ministry of Transportation at its chairman's spot. The problem was solved by reversing the balance of power between JNR and the Ministry of Transportation and privatization/break up according to the "opinion" went under way.

Even if all the deficit of three K's were to disappear, the government finance could not be balanced. It goes without saying that eliminating the loss of JNR or abolishing the labor cost of JNR does not balance the budget. The appropriate measure to balance the budget would have been to examine the subsidy system. Instead, the argument was replaced with JNR becoming the scape goat. It was akin to corporations taking the blame of oil crisis in 1970's.

JNR, however, was attacked more deliberately. Lax office procedure and bureaucratic management provided mass media with additional material to criticize. The issue caught exceptional support of public who was unhappy with amateurish attitude of customer service and relatively expensive fare (in comparison with private railroads) of JNR.

Outline and Problem of Restucturing

Break up was proposed to solve the problems arising from the nationally unified system which was incapable of managing such huge system and caused irrational interdependence between its subdivisions. Privatization was proposed to cope with the defect of public corporation, or, in other words, to protect the autonomy and the shaky labor relations of JNR which were vulnerable to interference from outside. Actually, it meant to create six companies, three from Honshu Island and other three from remaining three islands, each companies becoming corporations of which 100% shares in the hands of the government initially. The initial plan described in the "opinion" is shown on the chart-1 and figure-5.

Why it has to be broken up? What about just giving enough autonomy to each division? Is breaking up to six pieces the only way? Can't the problem be solved by correcting the deficiency of public corporation and not by breaking up? The "opinion" answered all these obvious questions but answers are not convincing. Perhaps, it is not possible to make persuasive argument. It is that we are at the stage of having to do something

Chart-1 Break-up of JNR

JNR (Special Corporation)
- → East Japan JR (Corporation)
- → Tokai JR (Corporation)
- → West Japan JR (Corporation)
- → Hokkaido JR (Corporation)
- → Shikoku JR (Corporation)
- → Kyushu JR (Corporation)
- → JR Freight (Corporation)
- → Shinkansen Holding Corporation (Special Corporation)
- → JNR Settlement Corporation (Special Corporation)
- → Others (Foundation, etc.)

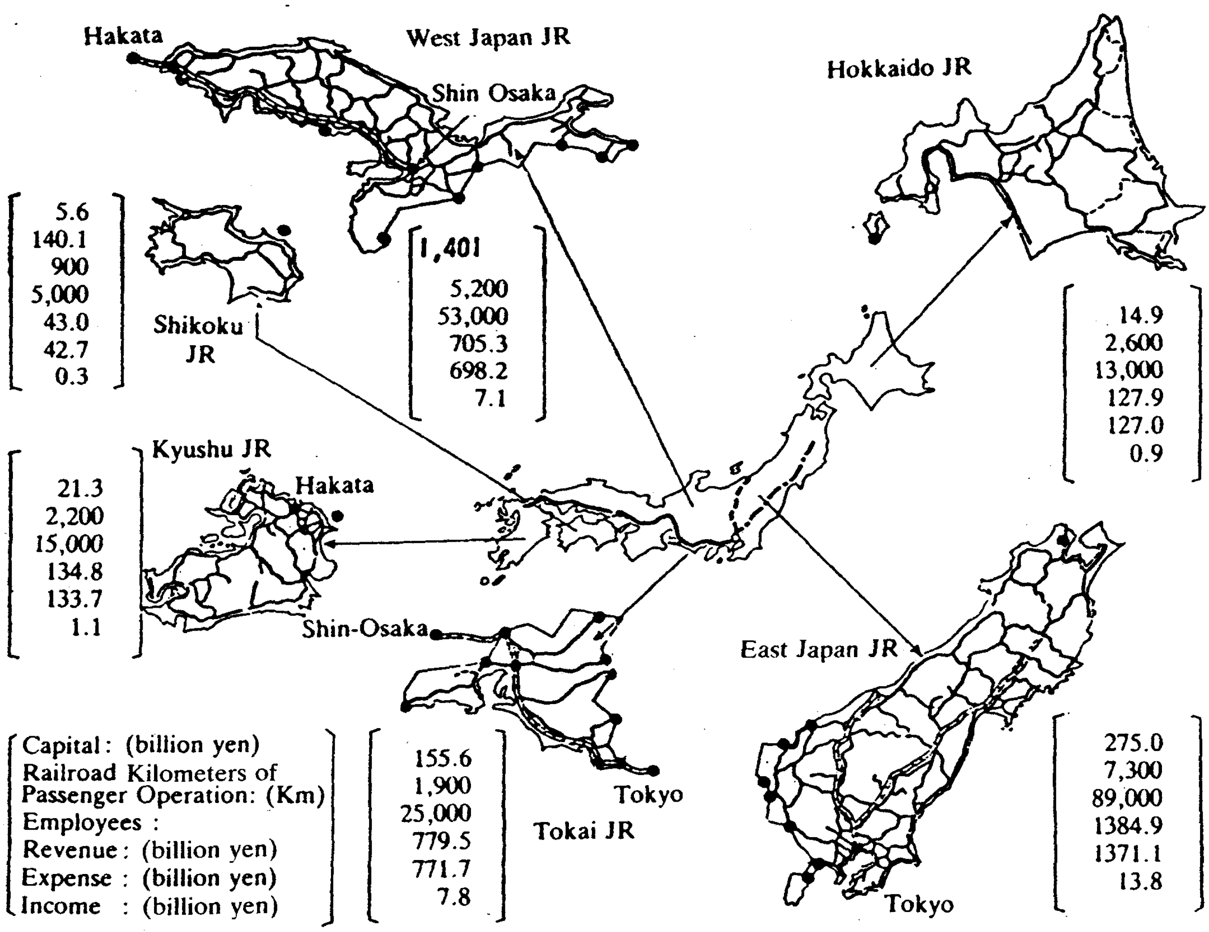


Figure-5 The Six JR's after the Break-up
(Source: KATO, Hiroshi, REBUILDING OF JNR, 1985, pp. 8–9)

in order get some breakthrough.

It is obvious that breaking up JNR doesn't reduce the deficit by itself. What is necessary to reduce the deficit is to increase competitiveness and to cut cost. That is what JNR in current form is doing and with such result as improved balance of main-line railway.

It would be noteworthy that transportation demand of this country differs from one region to another quite drastically. While Tokai Corridor (Tokaidou) is definitely the busiest route, other markets have entirely different demand. For example, the Tokaidou & Sanyou Shinkansen (bullet-train system) has carried 35,200,000 passengers per kilometer in the fiscal 1984 but Jouetsu Shinkansen has carried only about one fifth of passengers. Even within the same railway, Sanin-Honsen carried a mere fifteenth of Takasakisen's passengers. This difference of markets translates in the different profitability among railways (figure-6).

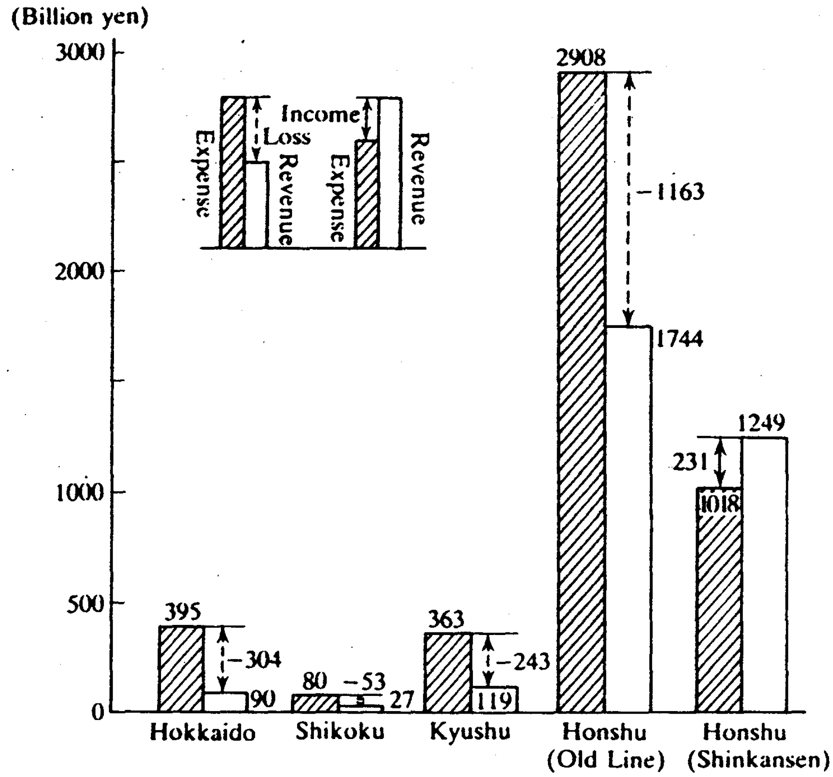


Figure-6 Operating Income by Regions (Fiscal 1985)
(Source: Report of JNR Audit)

In breaking up JNR, the "opinion" tried to balance the discrepancy with two measures. For one thing, they broke up the pieces in order to maintain as much parity as possible in terms of profitability. Another is the profit adjustment measure which is represented by the establishment of Shinkansen leasing and Three-Islands Companies Fund.

Shinkansen leasing means that the whole Shinkansen system is to be transferred to an independent special corporation from which all JR (baby JNR)'s are going to lease the system and operate. The aim is to offset the losses of unprofitable JR's as Tohoku or Joetsu with cash flow of profitable Tokaidou Shinkansen. Whether offsetting the regional discrepancy in this manner is a good measure or not remains to be seen. Especially now that the construction of Seibi Shinkansen is getting a green light with political support, this internal subsidy can cause a future controversy.

Three-Islands Companies Fund was designed to help the railroad operation of Hokkaidou JR, Shikoku JR and Kyushu JR, which have markets with extreme difficulty in turning out profits, with the fund's investment profit. The argument was that establishment of a fund is advantageous to a subsidy but basically it is nothing more than consolation money. Even though amount of the fund has been increased, it might not be enough. Three-Islands companies will get the fund but assumes no long term liability. As a result, it will have no liability at all.

Local railways will be maintained with profits of main-line railways after some of them were converted into bus service. Those local lines which escaped the abolition with political backings are also the subject of subsidy but they should be financed with other sources of income.

Another issue of JNR restructuring is excess workers. The number of employees who once reached 420,000 is to become 270,000 because of JNR's effort. Though, since the new JNR offspring companies would accept only 215,000, there will be 60,000 unemployed. It was assumed that 20,000 of them will retire and 40,000 will join JNR Settlement Corporation (Kokutetsu Seisan Jigyoudan) and wait for new jobs. The excess work force is concentrated in rural area with weak transportation demands. For example, one out of two JNR workers is said to be excessive in Hokkaidou, one of the regions with least job opportunities. In actuality more workers than previously expected retired and there is less excess workers. The pain of idle workers did not diminish, however.

New Companies and Inter-city Transportation

It is obvious that railroads have advantage within major cities but are unfitted in rural area for it cannot help being a mass transit system. The question is whether they can succeed in the long to medium haul inter-city transportation market where they compete with highway and air transportation. Backed by construction since 1970 of new highways and renovation of local airports to accommodate jets, rivals are getting more and more competitive. In competition between Shinkansen and highway, the former (railroad) still has a lead and in comparison between local railway and highway, the former is not competitive at all. The most critical for the new management of railroads is where main-line railway competes against highway transportation.

As construction of highways can be done faster than that of Shinkansen, the competition between main-line railway and highway transportation will increase its area size considerably. There is a limit on maximum speed on highway and that prevents the further increase of speed on highways. On the other hand, the main-line railways supposedly can increase its speed to up to 160 km/hour using the same railways. Increase in speed is the key to better service and lower cost in the future. On highways, scheduled bus service is quickly being established, with its low fare as a very potent weapon. Therefore, increased speed of main-line railway will make or break the future of new railroad companies. With airlines, they will have cooperative relationship.

Chart-2 Outline of JNR Spin-offs (JR) (Part 1)

	Passenger							Freight	Remarks
	Hokkai-do	East-Japan	Tokai	West-Japan	Shikoku	Kyushu	Total		
No. of Emplyees (×1000)	13.0	89.5	25.2	53.4	4.9	15.0	201.0	12.5	
Operating Kilometers (×1000)	2.5	7.5	2.0	5.1	0.8	2.1	20.0	9.9	
Volume (100 million passenger kilometers/million ton kilometers)	36	994	384	453	15	69	1,952	54	
Assets (billion yen)	293.2	3870.5	548.5	1312.2	114.4	349.1	6487.9	163.2	
Accepted Liability (billion yen)	—	3298.7	319.2	1015.9	—	—	4633.8	94.4	
Initial Fund (billion yen)	682.2	—	—	—	208.2	387.7	1278.1	—	
Capital (billion yen)	15.2	296.6	165.5	155.0	5.7	23.9	661.9	34.3	
Operating Revenues (billion yen)	86.1	1472.2	825.3	772.5	30.8	118.4	3305.3	171.5	
Operating Income (billion yen)	−49.5	248.4	26.4	80.5	−14.8	−27.0	264.0	8.2	Forecast for 1987
Net Income (billion yen)	0.9	14.8	8.3	7.8	0.3	1.2	33.3	1.7	

The chart-2 shows the outline of new railroad companies. Six JR's and a freight company are all special corporations with structure of corporations. They will become private companies when their shares are offered to the public, but they are government companies for the time being. As chart-2 tells, Higashi-nippon (East Japan) JR is the largest in size with operating revenue of the first year projected at 1,472.2 billion yen. The amount represent twice the revenue of Tokai JR or Nishi-nippon (West Japan) JR. As far as operating revenue goes, Three Islands Companies has only 2 to 8% the amount of Higashi-nippon JR.

In comparison with other corporations, Higashi-nippon JR's projected revenue (for fiscal 1987) is lower than Shin Nippon Seitetsu (New Nippon Steel)'s 2,200 billion yen but close to Mitsubishi Heavy Industry's 1,800 billion yen and considerably larger than Japan Air Line's 870 billion yen. Assets-wise, it is about the same with Shin Nippon Seitetsu's 3,560 billion yen (for fiscal 1985).

For fiscal 1987, Three Islands Companies is expected to show operating loss while three JR's of Honshuu Island origin are expected to make sizable profit. In comparison to about 20 billion yen operating profit of most private railroads, Higashi-nippon JR's profit will be 248 billion yen. On net basis, Three Islands Companies will break even with the subsidy from the fund. Tokai JR and Nishi-nippon JR will turn out profits comparable to those of major private railroads and Higashi-Nippon JR will make twice as much profit. All spin-off's of JNR released projected earnings for the coming five years, and according to the figure, Higashi-nippon JR's net income for 1991 is 36.7 billion yen.

Three Islands Companies will still have operating loss. The freight company, which will be difficult to manage, is projected to record net income of 1.7 billion yen and to maintain that level of profit through five years. The transportation volume during this period is assumed to remain flat.

As far as strategy goes, Higashi-nippon will try to strengthen the transportation within Tokyo area and between the capital and Tohoku area. Nishi-nippon depends 40% of its income on Sanyo Shinkansen. Therefore, solidifying the lead and to regain market share in Keihanshin Area where competition with private railroads is fierce is crucial. Tokai has to maintain the superiority of Tokaidou Shinkansen and increase volume of transportation in Nagoya and Shizuoka. Three Islands Companies would have to find market in intra-city transportation. The freight company should try to balance the budget and con-

Chart-3 Outline of JNR Spin-off's (Part 2)

	Shinkansen Railway Holding Corporation	Railway Communications	Railway Information Systems	Laboratory for Integrated Railway Technology	JNR Settlement Corporation
Status	Special Corporation	Corporation	Corporation	Foundation	Special Corporation
Employees (×100)	0.6	5.7	2.8	5.5	410
Assets (billion yen)	5700	41	18	...	...
Accepted Liability (billion yen)	5700	37	16	—	23,100
Capital (billion yen)	...	3	1	—	...

vert itself into integrated distribution company. The entity that will own Shinkansen Holding Corporation and Settlement Corporation which will succeed the legal status of JNR will both be special corporations. (Chart-3)[4]

Information & Communication business which is inappropriate to break up will be handled by yet another company.

Summary

It is impossible to discuss the whole aspect of JNR's restructuring in this paper, and that is not the purpose of this paper either. It is obvious that the argument of how to deal with liability is not described in depth. On the other hand, this paper should provide the analysis on process and the idea behind the privatization/break up of JNR.

After this paper was completed, the last financial statements of JNR, which was for fiscal 1986, was released. In comparison to the fiscal 1985 quoted on this report, the result of fiscal 1986 shows further improvement with the overall trend remaining the same. Most of solutions to the problems of JNR, including the clarification of the government's responsibility, remain postponed. Half a year has passed since JNR spin-off's begun their operations in this kind of environment. The goal of improving the balance is being achieved but labor relations and diversification may yet become a problem in the future.

The author hopes that this paper would find some use among those people dealing with increasingly popular privatization of public companies and restructuring of many nations' railroad systems that maybe struggling with losses.

(October, 1987)

Notes

(1) YAMAGUCHI, Masahiro, STUDY OF TRANSPORTATION LAWS AND APPLICATION, Koutsuu-Kyouryoku-kai, 1985, pp.245–246

(2) IMASHIRO, Mitsuhide, ISSUES AND VIEWPOINTS ON JNR RESTRUCTURING, artile on CHIRI number 11 of 31st issues, November 1986

(3) URABE, Kuniyoshi, PUBLIC CORPORATION, Moriyama Shoten, 1949

(4) Amount of accepted liability and others are subject to change of external factors.