

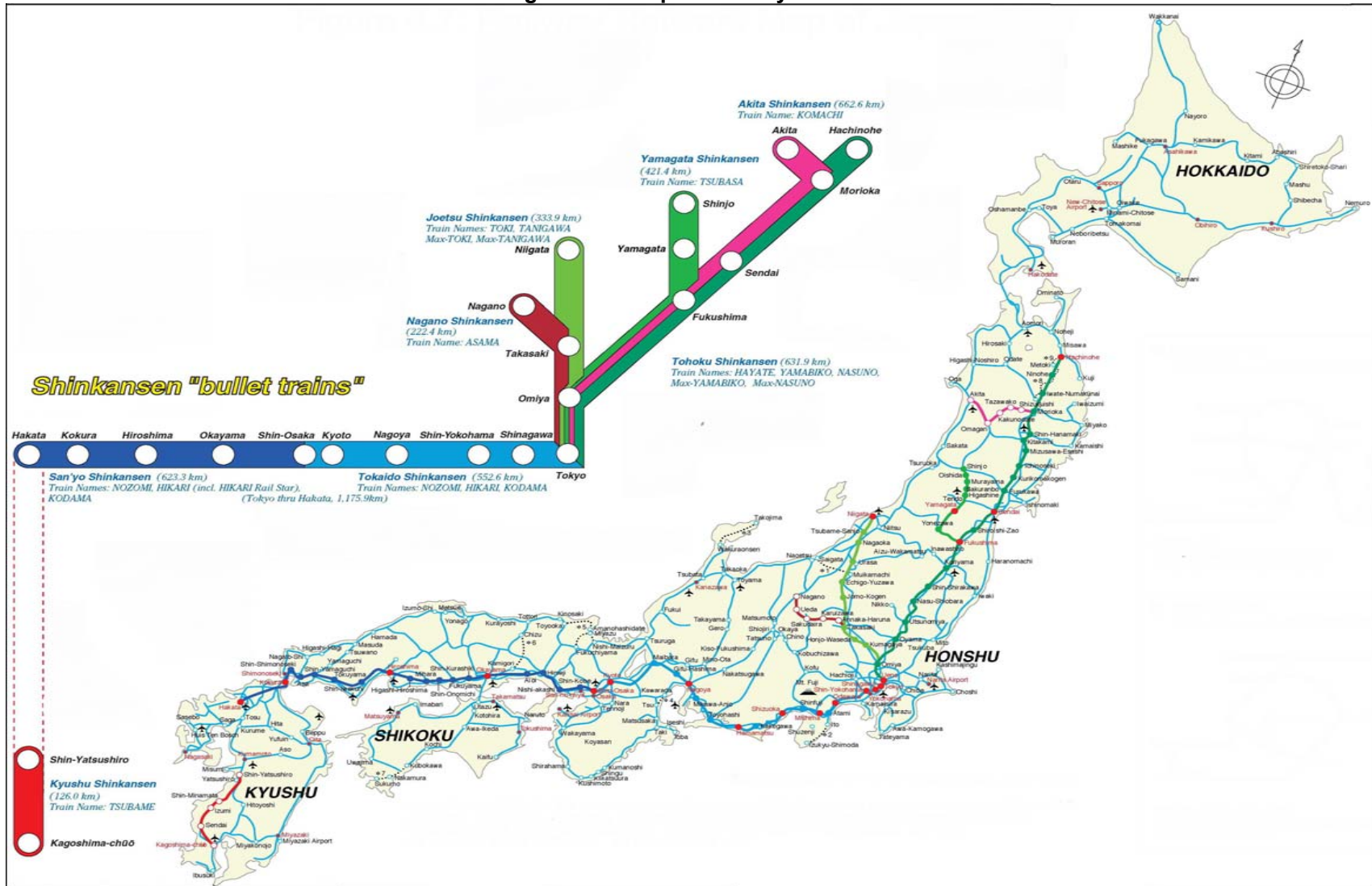
APPENDIX 13:
JAPAN

Appendix 13: Japan

13.1 Background

1. The state-owned Japanese National Railway (JNR) had been incurring losses since 1964. In 1986, its freight revenues covered only 68% of the costs. In addition, JNR had been suffering from excessive staffing and labor problems, including industrial action by employees. Based on the recommendations of the Government's 2nd Ad Hoc Commission on Administrative Reform, in May 1986, the JNR Reform Law and the Law concerning Passenger Railway Companies and JR Freight were enacted.
2. In April 1987, under the Reform Law, the JNR was statutorily disbanded and its assets, operations and liabilities were distributed among a number of new companies, known as the Japan Railways Group. The dismemberment legislation provided that JNR's passenger business, its infrastructure and its assets on JNR's 1,067 mm gauge network be distributed geographically between six companies, three on Honshu island and one each on Hokkaido, Shikoku and Kyushu. These companies were: (i) JR Hokkaido or Hokkaido Railway Company; (ii) JR Higashi Nihon or East Japan Railway Company; (iii) JR Tokai or Central Japan Railway Company; (iv) JR Nishi Nihon or West Japan Railway Company; (v) JR Shikoku or Shikoku Railway Company; and (vi) JR Kyushu or Kyushu Railway Company. For freight transportation one nation-wide company - JR Kamotsu or Japan Freight Railway Company was established.
3. The six regional passenger JR companies own and manage rail tracks and stations, offering passenger railway services in their respective regions. JR Freight does not own any rail tracks but operates freight trains on tracks owned by the six JR companies. As at the end of 2001, the six JR companies operated over a total of 20,051 route-km (Figure 13.1). This includes five Shinkansen lines on standard gauge with a total of 2,050 km in operation. The conventional railway lines of JR are on narrow-gauge.
4. In the pre-Reform Law period, the railway facilities were owned and operated by the same entity in principle. The enactment of the Railway Business Enterprise Law allowed a railway company to conform to any one of the following types: Type 1 company - which owns railway infrastructure and operates trains as before; Type 2 company - which only operates trains; and Type 3 company - which only owns infrastructure. Under this Law the six passenger JRs were set up as Type 1 companies, and JR Freight as a Type 2 company. The Law allows operation and ownership of railway infrastructure to be divided between Type 2 and Type 3 companies respectively. The essential difference from the EU model is that in countries where ownership and operation are separated, the railway infrastructure is owned by public bodies, which do not have to refund construction costs. In Japan, however, Type 3 companies have to refund construction costs with track use fees paid by Type 2 companies.
5. Consequent to implementation of the 1987 Reform Law, JNR's long-term debt of JYen 37.1 trillion was supervised by the Japan National Railway Settlement Corporation (JNRSC), a temporary holding company established for this purpose, which itself took on about 60% of the total debt and was expected to liquidate this liability by selling JNR-owned real estate (JYen 7.7 trillion) and stocks (JYen 1.2 trillion). The remaining 40% of the long-term debt was allocated to JR East, JR Central, and JR West, the three main-island passenger JRs. The three small-island JRs were exempted from liability because their profitability was very uncertain due to the small size of their markets and lower population density. By the sale of stock of the three main-island JRs, JNRSC has paid back about JYen 3 trillion. However, due to the delay in sales of stock and land in the 1990s, the JNR Settlement Corporation's liabilities have been increasing because of staggering interest payments of about JYen1 trillion annually. In 1998, JNRSC was reorganized as a division of the Japan Railway Construction Public Corporation (JRCC), and named the Japan Settlement Headquarters. There is little improvement in the debt situation; taxpayers will have to shoulder debt of over JYen 24.0 trillion, which is to be repaid from the general account budget over the next 60 years.

Figure 13.1: Japan Railway Network



Source: East Japan Railway Company

6. Privatization of the new JR group companies was the ultimate objective of JNR's dismemberment. Initially, all companies remained in the public domain as joint stock companies with the Government as the sole shareholder. Only the Hokkaido, Shikoku and Kyushu companies started free of any inherited debt liabilities, but all three required subsidy for their current operations, which was provided through government-established Management Stabilizing Funds. JR East was fully privatized in 2003. About two-thirds of the shares of both JR West and JR Central are held by the private sector and the remaining are still with the government. In addition, all shares of the other four JR companies are still held by the Government's JNR Settlement Corporation.

13.2 Subsidy for Railway Operation

7. The three JR passenger companies, which are private companies, do not get any government subsidies for their railway business. The remaining three JR passenger companies (JR-Hokkaido, JR-Shikoku and JR-Kyushu), which are still state-owned and own a large number of unprofitable lines running through under-populated areas, are supported by a JYen 1,300 billion Management Stabilization Fund. These companies operate the fund by appropriating the interest earned to improve operating results.

8. Since 1984 over 35 local companies have been established to take over loss-making JNR/JR rural lines. The new operators are known as third-sector companies, because they are a hybrid of private and local community finance. Previously, Japanese railway business was governed by two sets of statutes, one to regulate JNR and one covering other railways. This has been superseded by new legislation covering all railway business. It has reduced the degree of regulation, with provisos that railway safety and customer services are not impaired. A license is required to run a railway business and railway facilities are subject to inspection. Furthermore, fares and charges must be approved in advance by the Minister of Transport, although written notice is considered adequate for discounted fares and charges. Finally, train schedules must be submitted to the Ministry in advance of implementation

13.3 Railways Development

9. After JNR was restructured in to six companies, the three existing Shinkansen lines were each operated by a separate company. The Tokaido line was operated by JR Central, the Sanyo line by JR West and the Joetsu line by JR East, which also took on the operation of the Tohoku line after it was completed in 1991. It was realized that widely varying traffic volumes on each of these lines would result in a disadvantage for some JRs on profitability considerations. Therefore under the reforms all existing Shinkansen facilities were transferred to the newly established state-owned Shinkansen Holding Corporation (SHC). SHC owned all the Shinkansen facilities and leased them to the JRs at rates appropriate to the actual transport volume and earning capacity of the Shinkansen Line. This was done to equalize the financial bases of the JRs and the user's tariff burden. The Shinkansen portion of JNR's debt was taken over by SHC.

10. However, listing of shares under the leasing system presented problems in terms of protecting the investors and stabilization of the stock prices. Under the Shinkansen leasing system the JRs were not allowed to depreciate leased assets. Further, because of the possibility to adjust revenues between the three Shinkansen operating JRs, each was not independent of the other, and assets and liabilities of the JRs after the expiration of the lease period were unclear. It was decided to transfer ownership of the Shinkansen facilities to the operating JRs at a price determined by the National Government. The purchase price of the Shinkansen lines was as follows: JR East-JYen 4,056 million per km, JR West-JYen 1,759 million per km, and JR Central-JYen 9,887 million per km. The average price of the three Shinkansen lines was JYen 5,000 million per km.

13.4 Investment in Railway Construction

11. Heavy long-term investment needed for railways development coupled with slow generation of revenues over a relatively long period of time have inhibited railway companies to self-finance new lines. In Japan, initially, the national government had been using the general account (budgetary funds) for the construction of railway projects. However, the absence of a funding system independent of the budget was considered a major constraint on railway's development. In 1991, following sale of the Shinkansen facilities to the operating JRs a Railway Development Fund (RDF) was established by the National Government.¹

12. RDF provides funding for the construction of planned Shinkansen lines. The construction of these lines is undertaken by the Japan Railway Construction Public Corporation (JRCC).² RDF is responsible for redemption of principal and interest on the long-term debt it inherited from SHC. RDF also provides capital to railway companies in the form of subsidies, grants, interest free loans and other support to help them improve railway facilities. There are three main sources of revenue for RDF: (i) biannual payments by JRs for Shinkansen facilities transferred to them by SHC spread over a period of 60 years; (ii) subsidies from the National Government for railway development; and (iii) loans from government sources and financing institutions.

13. On 1 October 1997, RDF and the Japanese Maritime Credit Corporation were merged to form a new public entity, the Corporation for Advanced Transport & Technology (CATT). Presently this Corporation provides funding for construction of Shinkansen lines and interest free loans to construct and improve arterial railways.

14. Investment on the development of new Shinkansen railway lines is shared by the National Government, local governments and JR companies. The proportion of subsidies from the national government is fixed, and the source of the subsidies is the profits on sales of the existing Shinkansen lines and the public works project budget. Local governments bear expenditures equivalent to approximately one-half of those of the National Government. After the line is opened, JR companies pay access charges for track usage within the limits of their profit.

15. Investment for the development of arterial railways is shared by the national government, local governments and railway companies, including JR companies.³ The national government and each of the local governments provide subsidies for constructing arterial railways equivalent to 20% of the project costs (including costs of land, public works, railway facility, and equipment; and expenses for opening new lines). For freight railway business, subsidies equivalent to 30% of the project costs are provided solely by the national government.

¹ Role and Functions of Railway Development Fund, by Akio Ono, JR & TR, April 1997.

² The Japan Railway Construction Public Corporation (JRCC), was established in March 1964 under the Japan Railway Construction Public Corporation Law to promote the construction of railway lines for improving the Japanese railway networks and rectifying regional imbalances. It inherited the Shinkansen construction business, previously undertaken by JNR. When the Nationwide Shinkansen Railway Development Law was enacted, the public corporation built the first Shinkansen line in June 1970. In June 1972, it took on the building and improving of private railway lines to meet the increased demand for commuter transportation in urban areas. The Railway Development Fund was established in October 1991, for promoting the construction of projected Shinkansen lines. With interest-free funding, the Corporation built key trunk lines and urban railway services, introduced double-tracks to decongest services, and upgraded the specifications of existing railway lines. Following the enactment of the Law for Disposal of Debts and Liabilities of the JNR Settlement Corporation in 1998, the JNR Settlement Corporation was dissolved in October 1998, and its assets and liabilities were transferred to Japan Settlement Headquarters set up within JRCC. Under this Law most long-term liabilities (JYen 20 trillion out of total debt of JYen 28 trillion) was transferred to the National Government's general account, to be shouldered by the taxpayers.

³ Government subsidies for arterial railways cover projects for increasing speeds on existing arterial railways (including construction of new stations, improvement of stations, straightening of track alignment, electrification, and improvement of crossing facilities), increasing the transport capacity (providing multiple tracks), adjusting passenger-only lines for freight trains and improving freight terminals.

13.5 Experience with railway reform and restructuring

16. The three large JR companies which are in the business of passenger transportation are carrying out profitable operations since the restructuring and privatization. It may be mentioned that their operation is not encumbered by historical debt incurred for building much of the network, including the Shinkansen lines.

17. A significant feature of the railway companies in Japan is their involvement in real estate development. As reflected in the financials of JR East, a third of the revenues and about 50 percent of the profits are from the real estate business.

18. JR companies remain vertically integrated. The six passenger companies own and operate the rail network. The only exception is JR Freight that operates freight trains on the meter gauge network on the basis of access provided by the owning passenger companies.

19. The JNR experience has important lessons in the area of planning investment financing for large scale railway projects over a period of time. One of the main causes of JNR's failure was the enormous debt resulting from huge amounts of money expended on new railway construction projects. The servicing of the debt became a big problem because investments were not financed by increasing fares. Instead of increasing fares in line with the price index, JNR was forced to keep fares low as part of a national price control policy. As a result debt became unmanageable and the interest payments alone ballooned out of proportion to the size of the total operation. This emphasizes the overriding importance of establishing a practical scheme to raise long-term low-interest financing before railway construction is actually taken up.