

## Improvement of Railway Finances Hiving off Non-core Activities

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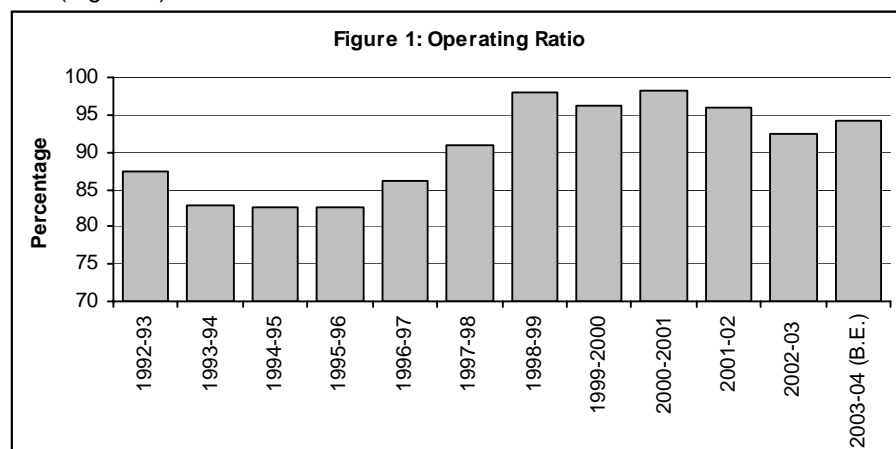
### The Problem

1. The Indian Railways are critical to the process and pace of economic development in the country. Indian economy has enormously benefited from the catalyzing role of railways. Much of its development over the last 150 years can be traced to the development of the railway system. Indeed, after independence, this trend has become even more pronounced. The railways account for nearly one per cent of GDP and are the largest employers in the organised sector. They have also done a yeoman's service in bringing about balanced and equitable regional development in the country. Given their crucial role in the overall economy, it is vitally important that they are kept in good financial and technological health. It is a matter for concern that enough attention is not being paid to these aspects.

2. While pursuing the general objective of moving people and goods between different destinations in the country, the railways worryingly do not appear to focus on capacity build-up, customer service, financial discipline and technological development. Somehow, over the last decade or so, an organisation that consciously sought to meet all the above criteria for judging its performance, has gradually gone into a state of comatose indifference to its own fate and, by extension, to that of the economy and the nation. To change this attitude is the biggest challenge facing the railways.

3. Today, the railways' financial position is under considerable stress. Indeed, by some yardsticks they are already in the middle of a financial crisis. The loss of market share to road transport in the freight business, lack of operational flexibility, especially in pricing, high and unrequited costs, a huge pension liability, inadequate internal generation of resources, coupled with skewed investment decisions driven by political or other considerations, have combined to bring the railways to a difficult situation.

4. The operating ratio (percentage of working expenses to gross earnings) has gradually deteriorated (Figure 1).

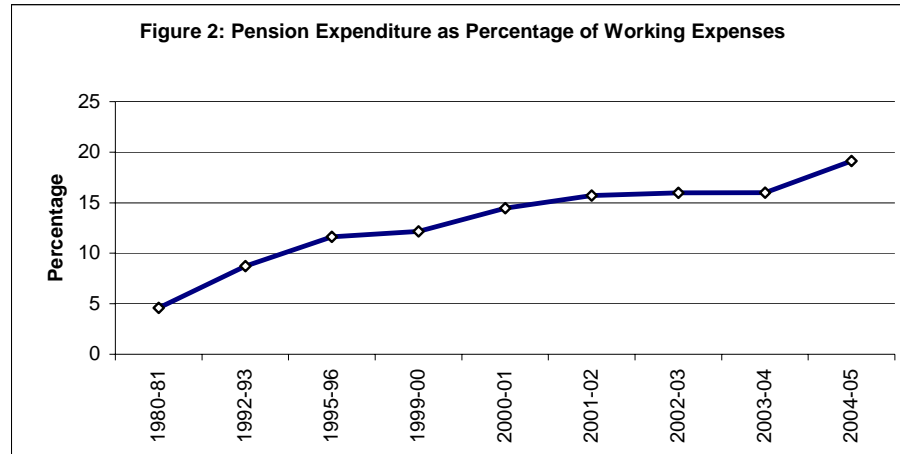


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Source: AITD/IR Year Book.

5. The share of pensions in the working expenses has risen from 4.65 per cent in 1980-81 to nearly 14 per cent in 2003-04 and is estimated to rise to 19 per cent in 2004-05 (Figure 2). The outgo on the staff wages and pensions has reached alarming proportions and accounts for 44 per cent of the annual revenues.



Source: AITD/IR Year Book

6. The system is badly run down and huge arrears of renewals and replacement have built up, as they have not been able to make adequate provision for depreciation (Table 1). The asset failure rate is 7-10 times higher than other railway systems in the world. The network is overstretched in the critical corridors and capacity constraints are being acutely felt.

Table 1: Depreciation Provision as a Proportion of Total Investments

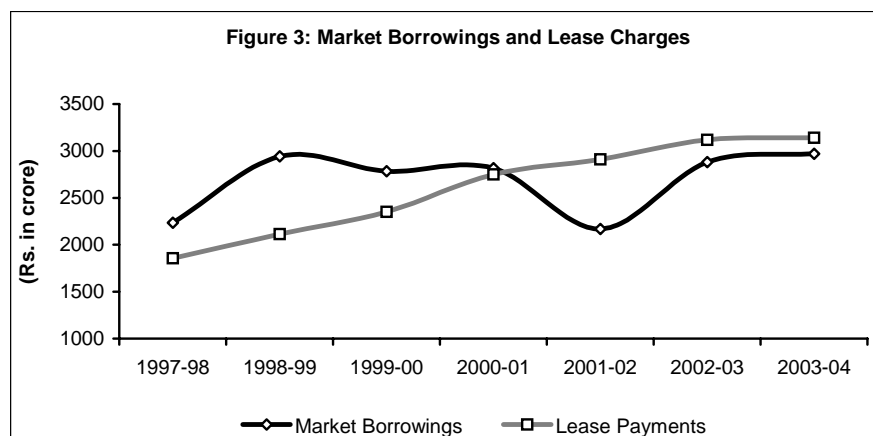
(Rupees in crore)

Year	Depreciation Provision	Total Investment*	Col. 2 as percentage of Col. 3
1	2	3	4
1992-1993	2,300	28,524	8.06
1993-1994	1,875	32,212	5.82
1994-1995	1,885	35,618	5.29
1995-1996	2,060	39,816	5.17
1996-1997	2,200	44,627	4.92
1997-1998	1,904	49,057	3.88
1998-1999	1,155	53,658	2.15
1999-2000	1,670	58,353	2.86
2000-2001	2,301	63,341	3.63
2001-2002	2,000	70,117	2.85
2002-2003	2401	77915	3.06
2003-2004	2592	87474.	2.96

\* Represents the total value of railway assets whether financed from Loan capital, DRF, DF or Capital Fund.

Source: Indian Railways

7. It is widely recognised that renewals, capacity build-up and technology up-gradation would require massive resources. To mobilise them is not an easy task, more so, when it has to be accomplished in an environment of falling budgetary support, growing competition, declining market share and increasing political profligacy. The budgetary support from the central government has gradually gone down. As a result, the railways have been forced to raise a part of their capital in the open market on high interest-bearing loans. This shift away from loans in perpetuity to market borrowings, which require to be repaid, has all but devastated railways' finances. A stage has reached when fresh borrowings are being used just to service the old debt of lease charges (Figure 3).



Source: AITD/IR Year Book.

### International Experience

8. There is a high degree of vertical integration in the railway system, which is the bane of all monopolies. This has gradually diverted the railways' attention from their core business of transportation. At present, they are performing in-house a whole range of activities which include catering, manufacturing, designing, running hospitals and schools, and so on. There is absolutely no reason why these activities cannot be hived off, leaving the railways to focus on their core business of moving goods and passengers.

9. The railways all over the world are undergoing a transformation. Basically, this change has two common features – reversion to core business and introduction of competition as a motive force for improving performance. Every successful restructuring effort has, therefore, entailed segmentation of assets and services into 'core' and 'non-core' categories. Assets and services that were not considered essential to train operation have been divested to enable the management to focus on the 'core' business of speedy haulage, both of passengers and goods.

10. Railway systems are highly complex. No two systems are alike in the geographic reach and socio-economic environment of their operations. As such, there are no general solutions to the problems faced by them. However, in all cases where restructuring has been attempted, the main objective has been to reduce railways' dependence on government funding and to gradually ensure the working of the railways on commercial lines. The Tenth Plan document (2002-07) while underscoring this objective also reiterates: "IR needs to run primarily on commercial lines, restructure its core business activities on sound commercial practices and spin-off non-core activities as separate entities".

11. Here, it would be instructive to study some of the most successful restructuring experiences in this area. In Annexure 1, we examine the restructuring efforts of the railways in six countries, namely, Britain, United States, Germany, France, Japan and China. It would be seen that while different railways have adopted different approaches towards achieving this objective, there have nevertheless been several common features. These are:

- Creating an arms-length relationship between the railways and the government;
- Defining the appropriate business centres and spinning off non-core business;
- Inducting management with commercial skills to create customer-focused organisation; and
- Introduction of competition as a motive force for improving performance.

12. It is worth noting that post restructuring, the railways world over have improved their performance on several fronts - price, quality of service, safety, market share, investments and productivity. Indeed, they have started competing with other modes of transport on parameters of efficiency, savings in commuting time and reliability of service.

### Relevance for IR

13. The above prescription is relevant for the Indian Railways as well. In this paper, however, we limit our discussion to the issue of spinning off the non-core business. We feel that having regard to the practicality of the situation, the prime candidates for hiving-off the non-core activities are production units, catering, on-board services, and schools and colleges. IR needs to critically examine its current portfolio and decide which of its many businesses are core and which should be spun off. What is important is the realization that the non-core activities are a huge drag on the working of the Indian Railways and their corporatisation and/or divestiture would be in the larger interest of the system.

14. Corporate structure is not a new experience for the Indian Railways. During the last three decades, IR has set up several public sector undertakings as autonomous entities. These include: RITES Ltd.; IRCON International Ltd.; Indian Railway Finance Corporation Ltd. (IRFC); Container Corporation of India Ltd. (CONCOR) and Konkan Railway Corporation (KRC). While the first three are fully owned by the government, in the case of the remaining two, IR is presently only the principal shareholder – CONCOR, 63 per cent and Konkan Railway Corporation, 51 per cent.

15. Recently, two new public sector undertakings have been constituted. These are: Indian Railway Catering and Tourism Corporation Ltd. (IRCTC) and Mumbai Rail Vikas Corporation (MRVC). The former is fully owned by IR, but the latter is a joint venture with Government of Maharashtra, with IR holding 51 per cent of the equity. IRCTC will focus on providing catering services and value-added services for tourists, both domestic and foreign. MRVC will focus on commercial exploitation of railway land and air space and development of rail infrastructure in Mumbai.

16. In order to meet competition from other modes of transport on the most congested routes of IR and to make rail transport competitive, a special purpose vehicle (SPV) – Rail Vikas Nigam (RVNL) – has been incorporated under the Companies act to carry out specific projects using build, operate and transfer schemes. IR envisages raising resources for strengthening of the golden quadrilateral (routes connecting four metro cities of Calcutta, Chennai, Delhi and Mumbai) and its diagonals, and for port connectivity under this scheme. Notified sub-projects costing about Rs. 8,000 crore (Rs. 80 billion) will form major part of this scheme. A part loan of \$ 313.6 million has been approved by ADB, to be utilized mainly for execution of projects covered under the initiative of 'strengthening of Golden Quadrilateral'. A dialogue with World Bank has been initiated to mobilize funds for "mega bridges" and other projects. Projects for providing "port connectivity" have been identified and resource mobilization for the same is proposed to be organized through various public-private partnership initiatives and budgetary support.

17. IR has also constituted a special purpose vehicle (SPV) to form a joint venture company, Pipavav Rail Corporation Ltd. (PRCL), with equity participation by Ministry of Railways, and Gujarat Pipavav Port Limited (GPPL) to undertake the construction, operation and maintenance of a 270 km long broad gauge rail link to connect Pipavav Port with Surendranagar. The project is concessioned to the SPV for 33 years after which it will revert to the railways. The demand risk and the project construction risk are to be borne by the SPV. IR will have a contract to operate and maintain this line, in return for a certain percentage of revenue as charges for operating the line. It would also recover the operational cost and maintenance including the hire charges for wagons, locomotives and coaches from the SPV.

18. Another SPV has been created by IR with the Karnataka State Government and Infrastructure Development Corporation, Karnataka, for gauge conversion of existing railway links between Hassan and Mangalore. Under the agreement, IR will operate the rail link by providing locomotives, wagons and technical staff and also maintain the line. It would also fix the freight rate and retain the right to operate passenger train services on the link. However, it will pay access charges, which will be negotiable.

19. The creation of these organisations provides an insight into the emergence of a new policy framework. It also demonstrates that the railways are no strangers to the process of corporatisation, disinvestment or setting up of joint ventures with strategic partners. Over the years, they have moved away from the 100 per cent equity holding pattern followed in the initial

stages and have also resorted to disinvestment of their equity holding. They have also involved a strategic partner from the private sector to set up a new corporation. IR has, thus, been experimenting with a wide spectrum of corporate structures.

20. The underlying objective in all these cases has been to distance from the rigid bureaucratic system of the government and gain from the freedom and flexibility inherent in a corporate structure. For the purposes of the present study, the setting up of the Container Corporation of India (CONCOR) is of considerable interest, since, in this case, a segment of IR's operations was transferred to a newly constituted corporate body. It is worth noting that this step was taken for the first time in the corporate history of the railways. It involved transfer of assets, including inland container depots along with plant and machinery, land, buildings, etc.

21. The company was set up with a paid-up share capital of Rs.5 crore, which was later increased to Rs.65 crore. Initially, the government held all the shares but subsequently reduced its holding by divesting 37 per cent of the equity in two tranches. The divestment yielded Rs. 365 crore which amounted to more than five times the paid-up equity capital. During 2003-04 it earned a profit of Rs. 368 crore and even paid a dividend of Rs. 81 crore to the shareholders. There cannot be a better example of a success story: while the parent organisation is reeling under deficits, the spun-off unit is making sizeable profits and even contributing to the railways' revenues. The lesson to be drawn is that government structures are not conducive to commercial activities.

22. There now exists a healthy relationship between IR and CONCOR. CONCOR negotiates haulage charges for the services provided by IR. The agreement also includes a penalty clause for the non-realisation of the agreed operational targets. CONCOR has a progressive marketing strategy and exercises all the freedom to fix its tariff. It has developed its own infrastructure, has even acquired rolling stock for its container services. The organisation has ambitious expansion plans. During the short span of its existence, it has emerged as a premier multimodal organisation in the country, functioning on purely commercial lines.

23. It may be noted that the multimodal operations were a core activity of the railways. As such, transfer of this activity has two clear messages. One, that a segment of IR's activities can be hived off, provided it is well-defined. Two, that such spinning off can be beneficial both for the railways as also for the new organisation. These messages inspire confidence that corporatisation of IR's production units would also turn out to be a success story; more so, because these units are engaged in a totally non-core but well-defined activity.

24. Success of CONCOR is an example of how the full potential of the various rail assets could be exploited. CONCOR has made use of the railway land to develop its Inland Container Depots (ICDs) and Container Freight Stations (CFS). This way the idle assets have been put to gainful use and the railways have also been relieved of making necessary investments in the development of multimodal terminals. CONCOR has also acquired high capacity and high-speed rolling stock for movement of containers between inland depots and major ports, thereby providing additional investment resources to the railways.

#### Hiving-off the Non-Core Activities

##### (i) *Production Units*

25. Coming to the specific issue of the IR's production units, these were set up at a time when it had become necessary to develop indigenous manufacturing capacity. Under the British regime, technology and the materials embodying that technology, whether it was rails or locomotives, were imported from Britain. But after independence, it was felt that time had come for the country to become self-reliant. In the ordinary course of events, the private sector would have been expected to take up the challenge. But as the Bombay Plan of 1944 had made clear, this sector was neither willing nor able to make the heavy investments in capital and technology required for the purpose.

26. In the early years after independence, the possibility of foreign exchange shortages had also become real. Therefore, in order to meet the twin objectives – that of developing indigenous capabilities and conserving scarce foreign exchange – the Indian Railways were entrusted with

the task of setting up and managing their own production facilities. Vertical integration thus became the norm, partly out of necessity and partly because at that time it was widely considered an ideal form of organising a business. India embraced the idea eagerly because it was the global trend and also because it fitted in not only with its economic compulsions but also the ideological imperatives of the day.

27. Five production units (PUs) were set up during the period 1950-90: Chittaranjan Locomotive Works, Chittaranjan, 1950; Integral Coach Factory, Perambur, 1955; Diesel Locomotive Works, Varanasi, 1961; Wheel & Axle Plant, Bangalore, 1984; Rail Coach Factory, Kapurthala, 1985. These units are managed as departmental undertakings of the Ministry of Railways, unlike public sector undertakings, which, though owned by the government, are autonomous corporate entities. The Ministry of Railways provides the funds through the railway budget and the accounts are audited by the Comptroller and Auditor General of India.

28. The units have to follow the policies laid down by the Railway Board in the matter of procurement of materials, plant and machinery leaving them with no autonomy in decision-making. The Railway Board also decides on the number and types of locomotives, coaches and wheels & axles to be manufactured each year, and the production units formulate their production programmes accordingly. The products manufactured at PUs are supplied to the Indian railways at, what is termed as the 'transfer price'. This price is worked out on actual cost basis. It, however, does not include the cost of capital, the profit element and share of administrative charges.

29. At present, both IR and its production units are at the crossroads. The monolithic structure of IR is no longer relevant or sustainable. Its core competence has got diluted to a degree where its very role is threatened in the transport sector. At the same time, its production units suffer from several constraints. Some of these constraints are inherent in the IR's vertically integrated structure, while others are the making of the production units themselves. Because of its weak financial position, IR has not been able to make even essential investments in plant and machinery. No wonder, 49 per cent of the Integral Coach Factory's (ICF's) plant and machinery has outlived its economic life; 16 per cent of the machinery is over 40 years old. Overage and obsolete equipment require frequent maintenance and additional staff.

30. It is, therefore, not surprising that ICF deploys 2631 maintenance staff as against 476 in Rail Coach Factory, Kapurthala. ICF has, in fact, remained trapped in a time-warp since the late 1950s. Similarly, at the Wheel & Axle Plant, most of the machines have outlived their economic life, causing heavy down time and low quality output. Much of this is true of other production units as well. All have remained roughly at the same levels of technology at which they were started.

31. Like the Indian Railways its production units are also overmanned. The productivity is also at low level. For example, Diesel Locomotive Works at Varanasi uses 33 man-years of direct labour for the production of each locomotive. The labour input per electric locomotive at Chittaranjan is also of the same order. In comparison, China uses 12-15 man-years and the developed countries about 6 man-years only.

32. Over the years, the production units have also developed their own types of vertical integration. For example, the older plants continue to produce components, which could be easily outsourced and that too at competitive rates. The result is high cost of production and low levels of productivity. As such, the staff deployed has become an unbearable burden for the parent organisation. Insofar as the PUs are concerned, this matters little to them as the transfer price takes care of these costs.

33. The availability of capital without a price tag has blurred the PUs' cost consciousness and financial accountability. In addition, the sheltered market for their products and absence of competition do not provide them any motivation for improving quality and upgrading technology, which is way behind international standards. The production units, by and large, have continued with the technology and designs initially procured only with some incremental improvements. In the bargain, they have suffered from technology stagnation for prolonged periods which affected their export potential. The report of the Expert Committee clearly brings out this constraint. Even when there is need for technology up-gradation, the inherent delays in government procedures

make it difficult to achieve this objective. The pace of technology up-gradation has been painfully slow. It has taken twenty years to start the process of technology transfer in the case of new generation of diesel locomotives and a similar timeframe for the up-gradation of the design of coaches.

34. Apprehensions have been expressed in certain circles that hiving them off could go against the social objectives of the railways. These fears are, however, misplaced. The fact is that if the production units are spun off, the social role of the railways will not be diluted at all. IR will continue to play that role because, as things stand, the PUs never had any social role to play. Indeed, their contribution to the national effort towards fulfilling social obligations would increase if they were made more efficient by becoming the main vehicles of adopting latest technology.

35. The world over, major industries including rail equipment industry have been undergoing structural changes as a result of domestic market developments and globalisation. The process has been largely driven by three factors: technology, capital and competitive pressure. The structural changes have resulted in the rationalisation and consolidation of the manufacturing activities. This process has been further strengthened by the technological complexity of the products and the need for a large enough market to support research and development.

36. All national railways have hived off their production units into independent enterprises. The challenge for the rail equipment manufacturers is to survive and grow in an increasingly competitive environment. The Indian Railways has not so far been a participant in this process of technology up-gradation in spite of having an in-house R&D organisation. It habitually shops abroad for technology at discrete time intervals. When the technology cycle was longer, this did not matter much. But as these cycles have shrunk, IR has become asynchronous with the rest of the world. Indeed, the technology used by the Indian Railways today is way behind that of the developed countries.

37. The initial binds, which were the *raison d'être* for setting up these units, have since lost their validity. The industrial base in the country has acquired the capability for producing high quality equipment. The ancillary industry has significantly developed to produce quality products at competitive prices. The private sector that was earlier reluctant to invest in capital-intensive industries is now willing to do so. It has also developed managerial and entrepreneurial skills. The process of reform that was begun in 1991, somehow bypassed the railway production units, whereas it should have been made an integral part of it. Time is both ripe and opportune to hive them off into independent enterprises under a corporate structure.

38. The present staff strength of all the production units of Indian Railways put together is around 48,000. Viewed in the context of the IR's total workforce, which is around 1.5 million, the magnitude of any labour redundancies and change of status consequent upon restructuring ought to be relatively insignificant. The age profile of the workforce in the production units is such that it should be relatively easy to offer a combination of incentives by adopting what is called a 'cafeteria approach' wherein alternative menus are available to choose from. All employees of the railway production units can be offered a choice of joining the corporatised unit or continuing with IR or retiring with attractive severance payments.

39. Here it may be clarified that corporatisation of production units would just be an interim phase. It would subsequently lead to disinvestment and adoption of some suitable model for restructuring in the follow-up phase. Indeed, there are several models that have been adopted in different countries. These are management contract; concessioning; public offering of stock; and joint venture with a strategic partner. Their main features are described in Annexure 2.

40. It may be emphasised that any model that is chosen for restructuring the IR's production units should have the capability to infuse capital, induct cutting-edge technology and resource managerial skills. For the production units, where infusion of private capital is one of the major considerations, a management contract will not be suitable. Concessioning may be a better option inasmuch as the investment and risks are taken care of by the concessionaires, but the retention of ownership by the government tends to dissuade private investors. The public offering of stock may be helpful in acquiring more capital, but it does not help in improving managerial skills,

employee productivity or quality of products. It is felt that in the case of production units aspiring to become vehicles of technology acquisition, joint venture with a strategic partner would possibly be the best option.

41. There has been a global trend towards consolidation through mergers and acquisitions. This has resulted in a few large companies dominating the world market and also introducing new technologies in their products. They are able to do so because of their vast resources and the ability to continuously invest in research and development. Indian railways will necessarily have to depend on such organisations for technological inputs if it wants to keep pace with the improvements in designs and technology elsewhere in the world. It would, therefore, be prudent to look for a strategic partner from amongst global enterprises. This will not only provide IR with modern rolling stock but will also encourage the restructured production units to develop the potential for exports.

42. IR has two production units each, for manufacture of locomotives, coaches and wheel & axles. Thus it is in a unique position to induct healthy competition for improving performance between each pair of hived off units manufacturing similar product.

43. To be successful, the process of restructuring of PUs has to be a planned exercise with various stages clearly identified. The transition from a departmental unit to a corporatised entity will have implications far beyond a change in the legal status. It would entail both regulatory and financial restructuring. Financial restructuring, for example, will typically involve cleaning up the balance sheet, deciding on the treatment of state-guaranteed obligations, setting up of financial systems and preparing new financial statements in accordance with the generally accepted accounting principles.

44. We have elaborated on the rationale and the need for hiving off the production units to bring home the point that it is a doable proposition, which will benefit the Indian Railways. The objective is to alter the PUs' existing technology acquisition paradigm and to reposition them as centres of technological excellence in a competitive globalised market. Another equally important objective is to help the railways to concentrate their attention and resources on their core activities. Presently, the outgo on account of annual wage bill and dividend on the capital advanced to the production units as manufacturing suspense is over 900 crore.

(ii) *On-board Services*

45. IR also needs to shed on-board services provided on passenger trains. There are several successful examples of outsourcing of these services. For example, in the case of Bangladesh Railways commercial activities of 44 passenger trains have been leased out to private sector, boosting the revenue earnings of these trains by 57 per cent. Likewise, cleaning and refurbishing of rolling stock has been outsourced to private sector. The State Railway of Thailand has also been able to turn around loss-making on-board services by leasing these activities.

(iii) *Catering Services*

46. IR has set up a separate corporation entrusted with the task of managing catering activities. It is a wholly owned subsidiary of the Ministry of Railways. It is hoped that this entity will soon have the infusion of private capital and managerial talent.

(iv) *Schools/Colleges*

47. The railways are running a number of schools and colleges for the benefit of the wards of their employees. The railways could explore the possibility of bringing these institutions under the umbrella of Kendriya Vidyalayas and extend financial assistance to the latter for management.

Extending the Net

*Uneconomic Branch Lines*

48. Indian Railways are burdened with a large number of branch lines which are incurring losses. Based on the recommendation of Uneconomic Branch Lines Committee, 1969, all narrow gauge lines and such of the broad gauge and meter gauge lines that join the main line network at one end only are termed as branch lines. A review of such lines during 2001-02 indicated that 115 (46 BG, 46 MG and 24 NG) branch lines were uneconomical and the Railways incurred a loss of

about Rs. 449 crore excluding dividend, on their account. The quantum of this loss has further increased over the years.

49. Several high-level committees have unanimously recommended that all such uneconomic branch lines, where alternative modes of transport exist or can be developed should be closed down so as to reduce, to the extent possible, the losses, which accrue to the Railways, year after year. There is, however, reluctance on the part of the state governments to close down such lines. The Railways Reforms Committee in Part XI of their report on 'Economies' (October 1983) had recommended that (i) 40 such lines where adequate alternative road infrastructure are available, and (ii) 17 such lines in Gujarat where alternative road infrastructure could be developed, should be closed down and in cases where the state governments do not agree for closure due to their own reasons they should share the losses with the Railways on 50:50 basis.

50. Railways have since issued instructions for closure/dismantling of 21 uneconomic branch lines (15 out of 40 and 4 out of 17 referred to above plus 2 other uneconomic branch lines). In order to enable the state governments for closure of the remaining 38 lines, the Railways have offered financial assistance as under:

- (i) On one-time basis, the Railways may subsidize the procurement of additional buses required due to closure of rail sections subject to the state government agreeing for their permanent closure.
- (ii) Again, on one-time basis, Railways may offer financial assistance for development/improvement of road infrastructure which will be a pre-requisite for withdrawal of train services.
- (iii) Offer of Railway embankments in respect of 13 lines in Gujarat for conversion into all-weather metalled roads.

51. Concessioning can be one of the useful methods of reducing the losses incurred on uneconomic branch lines. It is a mechanism by which a government, while retaining the ownership, transfers to a private concessionaire the operation of the entire railway, a portion of the railway system or a function of the railway, for a fixed period. The operator is responsible for rehabilitation of infrastructure and acquisition of new assets. He covers investment costs and carries commercial risks. Normally, any new assets that the operator invests in revert to the government at the end of concession period.

52. Concessions provide an instrument that the railways can use to contract out the operation of inherently unprofitable services by asking concessionaires to bid on a minimum subsidy rather than a minimum profit share basis. Thus, where government is introducing concessions as a means of reducing the burden on the public purse, it may use the criterion of the greatest fiscal benefit (lowest subsidy or highest premium) for awarding concession. Given the constraints on public budgets to finance the growing infrastructure needs governments have sought to shift part of the burden of new infrastructure investment to the private sector. Many countries have enlisted private sector participation in infrastructure through the use of concession contracts with private operators and developers.

53. It is critical to understand how revenue risks are shared in a concession arrangement. Where revenues accrue to the operators they carry both cost and revenue risk. Where revenues accrue to the governments, concessionaires carry the cost risk and government, the demand (revenue) risk. Evidence in the U.K. and other transport concessions suggests that the latter type of concessions attract more bids, and yield a more competitive contract price. As a result, they are less costly to the public purse.

54. Each country has addressed its problems differently, providing different insights into what can be achieved through concessions. But a few common trends can be discerned. Restructuring and substantial government investment in the design of a concession does pay off. If allowed to, concessionaires can do exactly what is expected – increase traffic, improve service, and enhance labour and asset efficiency. There is nothing magical about this. Concessions work because government interference is ended and commercial management techniques are introduced and allowed to operate.

55. In Argentina, the entire railway system was given on concession. The results have been mixed. While the profitability on freight concessions has been moderate, other gains have been substantial: a turnaround in traffic trends, a quadrupling of labour productivity, improvements in service quality, reductions in prices and a reduction in the public deficit of about US\$600 million a year (equal to about 0.5 per cent of GDP).

56. In India, the Ministry of Railways have recently decided that three hill railways namely, Darjeeling Himalayan Railway (DHR), Neral-Matheran Railway and Nilgiri Mountain Railway should be concessioned to RITES, IRCTC and a private party, respectively. In this context, it may be pointed out that concessioning the railway lines to the subsidiaries of the Indian Railways is not a transparent method of dealing with a problem. Not only no competitive bidding would be held, it may also amount to transferring the losses from the parent body to the subsidiary.

#### *Sub-urban Railway System*

57. Suburban business is a losing proposition for the Indian Railways. Low passenger tariff is the main reason for losses. Railways charge only Rs.0.13 per passenger kilometer while bus services in urban areas charge upward of Rs.0.48 per passenger kilometer. Problem of suburban losses can be resolved only by hiving off this business as a separate corporation. As mentioned earlier, a joint venture between Government of Maharashtra and Government of India (MRVC) has been set up for commercial exploitation of railway land and air space and to augment the rail structure by raising funds through loans that will be paid back by levying a surcharge on passenger tariff. Similar ventures would be necessary to shed suburban business at other metropolitan cities.

#### Glimmer of Hope

58. Any number of committees and expert groups have gone into the various issues and come up with any number of suggestions as to what the railways need to do and how they must change. Lack of a clear political mandate, non-commercial organisational ethos and short tenures at the policymaking levels has been responsible for maintaining the status quo.

59. Need for change has become inevitable with the liberalization of economy. In an international seminar organized by the Asian Institute of Transport Development in New Delhi in 1995, eminent speakers from various academic institutions, and from European, African and Indian railways presented various policy options for restructuring railways.

60. More recently, World Bank and an Expert Group on Indian Railways, set up by government of India, have made detailed recommendations for restructuring the Indian railways. A discussion on these is beyond the scope of this paper, however, a summary of main recommendations is placed at Annexure 3. A notable feature is that both reports have recommended that non-core activities should be hived off. Regrettably, precious little has happened in this direction. There is, however, a glimmer of hope with the Planning Commission, pressing for implementation of the specific recommendation of the Tenth Plan document in this regard.

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## Country Experiences in Rail Restructuring

*Great Britain*

First restructuring of railway industry took place in UK in 1921 when through an Act of Parliament 123 private railways were merged into four groups to bring about a unification of the network. During the Second World War the government took over the control of railways and nationalized them in 1947 under the 1947 Transport Act. Another Railway Act was legislated in 1993 to disintegrate the rail business into a number of separate units, each to be sold or franchised separately. Engineering functions and rolling stock were sold, train operation franchised and infrastructure was passed on to a newly created company 'Railtrack'. The latter was privatised in 1996. Train operating companies could gain access to the rail network through commercial access agreements with this company.

This hasty disintegration of the system has not proved entirely satisfactory. Placing the infrastructure into private hands, without adequate regulatory controls, led to maintenance deficiencies, and due to lack of infrastructure investments by the company a series of accidents occurred over the next five years. The rail network was then taken over by a not-for-profit organization 'Network Rail'. An independent 'Strategic Rail Authority' was also constituted in the year 2000 to oversee, promote and develop the rail network. Britain now proposes to replace even this body with a government department that would take key strategic decisions and provide a firmer grip on the creaking rail network.

*United States*

At the beginning of the 1970s, the US railroad industry was near collapse. Six railroads in the Northeast and two in the Midwest were bankrupt, and no railroad was earning enough to maintain or replace its assets. The rail market share for freight had plunged by 18 percentage points in two decades and the share of the inter-city passenger traffic had nearly vanished. The US faced the threat of losing a vital player in its transport industry.

The first response, creation of Amtrak, was to relieve the private railroads of the public burden of passenger services and to try to regenerate passenger services by putting them under dedicated, 'as if for profit', management. Amtrak operates a 40,000 km national rail passenger system and receives Federal and state subsidies for doing so. Amtrak pays the freight railways for the costs of operating over their tracks. The objective of removing deficits from freight operations was clearly met. However, the goal of creating a self-sustaining passenger system has not been achieved. Amtrak continues to incur losses.

In the second step, the bankrupt Northeastern railroads were nationalised in 1972, rehabilitated with Federal money, pruned of excess tracks and labour, and eventually re-privatised in 1987. In addition, the Midwest bankrupts were liquidated, with a few tracks sold to other railways and the rest closed. Redundant workers received compensation for their loss of employment in both regions. The third step was deregulation of railways (1981), trucks (1982) and airlines (1979). With few exceptions, railroads were allowed to set prices and offer services in line with market demand and without interference from the government.

Taken together, these three steps have transformed the US freight railroads. Since 1981, ton-km have risen by 51 per cent, average tariffs have fallen by over 50 per cent in real terms, accident rates have fallen by two-thirds, and earnings have risen to near-record levels. At the end of the century, the US freight railroad system is the largest and most efficient in the world, and despite the highest wages of any rail system, charges the lowest tariffs.

*Germany*

The assets of West German and East German railways were merged in 1993; commercial activities separated out in 1994 and cast into four separate units (rail network, short-distance passenger traffic, long-distance passenger traffic, and freight traffic) each operating independently. These were placed under a Joint-Stock Corporation (DB AG) with Federal

Republic as the majority shareholder. As part of the restructuring effort the State cleaned up the balance sheet of the railways and freed DB AG of any commitment towards public service obligations. In 1997, its board transformed the German railways into five different companies, two each for long and short distance passenger and freight traffic and one for infrastructure (DB Netz AG), with DB AG as the holding company. In 1999, during the second stage of the reform, which was planned to take around 10 years, these units were transformed into independent public limited companies with DB AG as the holding company.

The railways now receive compensation for the non-commercial services rendered by them. For example, they receive contractually defined compensation for transport services in densely populated areas, which typically cannot be provided without heavy losses. In such cases, public funds are used to purchase the transport services from the railways at cost. The network of German railways is open to access to all railway operators, both registered in the country and non-German railway undertakings. DB AG is free to set the tariff levels, though rules for calculating such levels have been set by the Federal Republic to allow non-discriminatory access to the rail network.

#### *France*

French railways were earlier run under a single state enterprise SNCF. In 1997 a separate state enterprise (RFF) was created to take over the ownership and development of infrastructure. SNCF is responsible for management of train operations and also maintains the infrastructure on behalf of RFF on contract. RFF revenues flow from infrastructure fees and a contribution from the state budget to infrastructure costs. Market access for new operators is allowed by RFF with a fee based on category of service (urban, intercity, high speed etc.). Rail reform also involved decentralization of regional passenger services. These services are supported by subsidies provided to the regions by the government. France has thus inducted competition for track access retaining the characteristics of a vertically integrated network with the dominant operator also maintains it, thus ensuring safety of operation.

#### *Japan*

Japanese national Railway (JNR) was privatised in 1987 splitting it into seven operating units, known as Japanese Rail (JR) Companies- six regional passenger companies and one freight company covering the entire country. Prior to this separation, JNR had a debt liability of over 300 billion US dollars. A part of this liability (39%) was transferred to three of the bigger companies and the remaining was taken over by a Corporation constituted for the purpose of settlement of balance liabilities through sale of part of land and other assets. JNR's non-core activities were also privatised organising them into separate companies.

The reform saved the collapse of Japanese rail industry. Privatisation of the system increased productivity and efficiency. The overall productive efficiency of the Japanese railways improved since the beginning of railway reform in 1987 due to many factors: a fatter and more decentralized organisation, labour-saving options, a private railway type incentive wage scheme and improvements in the management-labour relationship. The rail companies are presently operating on profit, contributing to government revenue by way of taxes, and government subsidies have been eliminated.

#### *China*

China has a vertically integrated, government owned, railway network, cast into fourteen regional administrations that operate under the Ministry of Railways. Chinese Railways (CR) are freight dominated and have a very high productivity in terms of traffic units carried per track-kilometre. However, due to a decline in its market share and changing requirements of markets due to opening up of Chinese economy, the railways consistently lost their market share since 1990s, when the need for making some structural changes to the railway organisation was recognized by the government.

The closed rail transport system was opened up during the ninth 5-year plan (1996-2001). The MOR and regional railway administrations were given more power to run their business. Non-core facilities like hospitals, technical universities, and railway engineering and rolling stock manufacturing plants functions were removed from Ministry of Railways. Altogether 800,000

people were thereby removed from CR's manpower. Right-sizing the operating manpower requirement reducing 300,000 jobs reduced overstaffing. As a result of these measures, CR's financial position improved substantially and revenues increased to make it profitable.

In the tenth plan (2001-2006), the government plans to reduce its involvement in commercial aspects of CR and concentrate its role on overseeing rail policy development, system planning and safety. The areas earmarked for improvement of CR's competitiveness and ability to respond to changes in market demand include separating passenger and freight operations and other line of business entities into business units with their own accounts. Such steps can pave the way for corporatisation and eventual privatisation of the business units, if so desired, at a later stage.

## Disinvestment Options

### *Management Contract*

In this system, the ownership continues to rest with the government, but the management rests with the private contracting agency, which has the necessary expertise and management skills and runs the unit for a fee or a commission or for a combination of both. By retaining ultimate ownership and/or the right to supply, the government controls the policy and thus can find a way to allocate risks to those who can bear them. This model is best suited where the prime consideration is provision of right management skills in a state enterprise. It does not, however, resolve the important issue of infusion of private capital, and, with ownership retained by the government, many of the limitations of a state-run organisation would also not be overcome.

### *Concessioning*

Concessions are a broader form of lease in which the concessionaire agrees to make certain fixed investments and retains the use of assets for a given period. It reduces front-end capital costs to the concessionaire (i.e. the party receiving the concession), who uses public assets in return for a profit share and a commitment to invest in the public utility concerned. By reducing initial capital costs, concessions effectively broaden the market for private sector participation. Concessions also provide an instrument that government can use to contract out the operation of inherently unprofitable services by asking concessionaires to bid on a minimum subsidy rather than a minimum profit share basis.

### *Public Offering of Stock*

This option is suitable for a railway, or a railway facility such as a production unit, that is already corporatised, has successfully restructured to improve its balance sheet, and has good prospects of growth and profitability given the injection of private capital. Public offering of its stock can then be a viable option.

### *Joint Venture with a Strategic Partner*

Simply put, the concept is to establish a joint venture with a strategic partner – one that has the capacity to infuse the necessary finance, technological and managerial skills and commitment to Indian market – to whom the government transfers a substantive stake. Such a mode of disinvestment has several advantages. It has the flexibility to accommodate special interests of either party. For example, the government may wish to lay down a condition of no retrenchment of staff for a specified period of time, or the strategic partner may want an assurance that in the event of the government undertaking any further dilution of its equity holdings in the future, the strategic partner would have the first right of purchase. Compared to the other methods, this one provides a relatively easy route for induction of private capital.

## Main Recommendations of Recent Studies

<b>India's Transport Sector: The Challenges Ahead, World Bank, 2002</b>	<b>Report of the Expert Group on Indian Railways, 2001</b>
Separation of policy, regulation and business functions.	Separation of roles into policy, regulatory and management functions.
IR to be corporatised as a business entity and operated on commercial lines.	Corporatisation of Indian Railways.
Non-core activities to be managed separately with the objective of eventual divestiture.	Non-core business should be spun off – IR should engage itself only with its core-activity related to rail-based logistics and passenger transport.
	IR to consider management of its freight terminals and railway goods sheds by outside agencies.
Enterprise functions to become lines of business.	Restructure railways to become a business oriented customer-driven institution, the main components being freight, passenger, suburban, shared and fixed infrastructure. The business units to function on commercial lines.
Adoption of commercial accounting format.	IR's accounts to be recast into company format.
Legislation to be suitably amended to facilitate changes.	
Clear differentiation between social obligations and commercial imperatives.	Differentiation between social obligations and performance imperatives: government to provide subsidy for social projects and to fund operating losses.
Leverage benefits arising from leasing of equipment.	IR should attract private investments in financing and leasing of rolling stock.
	Downsize staff strength.