'Turnaround' of Indian Railways: A Critical Appraisal of Strategies and Processes

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Abstract

Indian Railways (IR), which was declared to be heading towards bankruptcy as per the Expert Group on Indian Railways in 2001, is today the second largest profit making Public Sector Undertaking after ONGC. The fund balance crossed Rs.12,000 crores in 2005-06, which had reached a low of just Rs.149 crores in 1990-2000. The total investment being planning for the eight-year time frame (2007-2015) is tentatively in the order of Rs.350,000 crores. This confidence is not only due to the rising trend of performance, but also due to the significant growth in the past two years. These two years coincided with Mr. Lalu Prasad being at the helm of affairs of the IR, having moved into his position on 23rd May, 2004. Railway officials called this as the 'turnaround' of IR.

This paper attempts a diagnosis of the 'turnaround,' beginning with the question as to whether it really was a 'turnaround'. This paper then carried out an analysis of the various determinants of the 'turnaround' related to goods, passenger and other operations. This is followed by a critical assessment of the strategies and key processes being the 'turnaround'. Finally the sustainability of the 'turnaround' is explored.

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1. Introduction

The Minister for Railways (MR), Mr Lalu Prasad, the Chairman and Members of the Railway Board (RB) were reviewing investments for the XI Five Year Plan in mid July 2006. The focus areas that had been put forth in the XI Plan Approach Paper were [Planning Commission, 2006]:

1. Capacity augmentation, especially Delhi-Mumbai and Delhi-Howrah dedicated freight corridors
2. Establishment of logistic parks and terminals
3. Rationalization of freight structures
4. Increased use of IT enabled services
5. World class quality passenger amenities
6. Public-private partnerships for building and operation of rail infrastructure
7. Design of high capacity wagons
8. Restructuring of IR to focus on core activities
9. Establishing a Rail Tariff Regulatory Authority

The total investment being planned for the eight year time frame (2007-2015) was tentatively in the order of Rs 350,000 crores. This was a significant increase from the planned Rs 60,000 crores (actual expected to cross Rs 80,000 crores) in the X Plan period of 2002-07.

This confidence was a result of what the Indian Railways (IR) achieved, not only due to the rising trend of performance, but also due to the significant growth in the past two years (2004-06) (Exhibit 1). The fund balances had crossed Rs 12,000 crores. These two years coincided with Mr Lalu Prasad being at the helm of affairs of the IR, having moved into his position on 23rd May, 2004. Mr Lalu Prasad, in his opening remarks of the budget speech of 2006-07 on 24th February 2006 had said, "Mr. Speaker Sir, I rise to present the Budget Estimates 2006-07 for the Indian Railways at a point in time when, there has been a historical turnaround in the financial situation of the Indian Railways."

IR was considered to be heading towards bankruptcy, as per the report of Expert Group on Indian Railways (also called the Rakesh Mohan Committee report), submitted in July 2001 (of which the author was a member) which studied the IR for nearly two years [NCAER, 2001]. They had stated,

[1] Prepared by G Raghuram, IIM Ahmedabad, September 2006.

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> "Today IR is on the verge of a financial crisis... To put it bluntly, the 'business as usual low growth' will rapidly drive IR to fatal bankruptcy, and in sixteen years Government of India will be saddled with an additional financial liability of over Rs 61,000 crores… On a pure operating level, IR is in a terminal debt trap."

The fund balance at the end of 1999-00 had reached a low of Rs 149 crores, improving to Rs 5228 crores by the end of 2003-04 and over Rs 12,000 crores by the end of 2005-06. A 20 year perspective since 1987-88 gives a bird's eye view of the performance of IR, in terms of total earnings, total working expenses, operating ratio and net revenues (Exhibit 2). The operating ratio (ratio of total working expenses (including depreciation and pension, but exclude dividend to GOI) to total earnings) and net revenues (total earnings less total working expenses, adjusted with miscellaneous transactions) had reached low levels of performance in 2000-01 (98.3%) and then had consistently improved till 2005-06 (83.7%).

The figures were however not strictly comparable. There had been a decrease in allocations to the depreciation reserve fund during the late 1990s from over Rs 2000 crores to a low of Rs 1155 crores in 1998-99. This was followed by a gradual increase until 2004-05 to Rs 2700 crores. In 2005-06, the allocation jumped to Rs 3600 crores (Exhibit 3). Further, there was a change in accounting practice in 2005-06 when Rs 1615 crores of lease charges to IRFC towards the principal amount for wagon procurement had been shifted from working expenses to miscellaneous expenditure. The operating ratio, for the sake of comparability with earlier years, would be 86.6%. Exhibit 4 gives the key statistics of IR as on 31st March, 2005.

As a recognition of this 'turnaround,' some of the world's biggest asset managers, investment bankers and consultants including Goldman Sachs, Deutsche Bank, HSBC, Mckinsey etc had shown interest in working with IR.

2. Turnaround Diagnostics

To diagnose the 'turnaround,' the first question would be *whether it really was a 'turnaround.'* Exhibit 1 allows an analysis of this.

The total earnings in 2005-06 increased by Rs 7121 crores, a 15.0% growth with respect to 2004-05. The total earnings in 2004-05 increased by Rs 4465 crores, a 10.4% growth with respect to 2003-04. Similar figures for the earlier years since 2001-02 ranged between 4.5% and 8.5% with respect to the previous year. The total working expenses plus the lease charges towards principal payments in 2005-06 increased by Rs 4431 crores, a 10.4% rise with respect to 2004-05. The total working expenses in 2004-05 increased by Rs 3277 crores, a 8.3% rise with respect to 2003-04. Similar figures for the earlier years since 2001-02 ranged between 3.8% and 4.8% with respect to the previous year.

As a consequence of the total earnings and total working expenses, the net revenue reached a record of Rs 8005 crores in 2005-06, following the Rs 5274 crores in 2004-05. This was a record increase of Rs 2731 crores, reflecting a 52% increase in net revenues. Earlier, until 2004-05, there had been a steady climb from the low of Rs 1071

crores in 2000-01. The internal generation of cash surplus including provision for depreciation and Special Railway Safety Fund (SRSF) reached an historic level of Rs.13,068 crores for 2005-06, following the Rs 7603 crores in 2004-05. Exhibit 2 provides a visual description of the total earnings, total working expenses, their growth rates and the net revenue receipts.

The essence of the 'turnaround' was in the fact that (i) total revenues increased by a significant percentage in the last two years and (ii) the net revenues continued a robust upward trend.

This justified the principles that "freight business is a play on volumes," and that "passenger business is a play on volumes and quality" which were behind various focused initiatives undertaken by the MR, and driven by the RB. Further, the initiatives were pursued in a manner that results could be obtained as quickly as possible, yet laying the foundation for continued performance improvements.

An interesting aspect was that the total earnings in 2005-06 had gone up by a record Rs 3523 crores with respect to the budget estimates (BE) for the year. While this could raise questions about the budgeting process, for the year 2005-06 it is more of a consequence of initiatives that were put in place during the year, with results coming in the same year.

The next question would be the *determinants of the 'turnaround'*.

The increase in total earnings of Rs 7121 crores could be attributed to (i) goods earnings of Rs 5509 crores (17.9% increase on a base of Rs 30,778 crores), (ii) passenger earnings of Rs 1013 crores (7.2% increase on a base of Rs 14,113 crores) and (iii) others earnings including parcel, catering, advertising etc of Rs 599 crores (24.2% increase on a base of Rs 2479 crores) in 2005-06, out of the total earnings, goods constituted 67%, passenger constituted 28% and others 6%.

2.1 Goods Earnings

The increase in goods earnings for 2005-06 over 2004-05 was Rs 5509 crores, including miscellaneous earnings due to wharfage and demurrrage. Excluding the miscellaneous, the increase was Rs 5482 crores. Exhibit 5 provides an analysis of the commodities through which the increased goods earnings were obtained.

Coal (Rs 1365 crores), other goods including raw material (iron ore, limestone and dolomite) for other than major steel plants, and other stones, sugar, salt, non bulk goods and containers (Rs 1121 crores), iron ore for exports (Rs 733 crores), cement (Rs 550 crores), raw material for steel plants (Rs 475 crores), fertilizers (Rs. 449 crores) and pig iron and finished steel (Rs 373 crores) accounted for 92% of the increase in earnings, in that order.

The increase in earnings from coal and other goods were largely due to the increased loadings. The increase in earnings from iron ore for exports was both due to increase in loading and increase in rates by change of classification. The increase in earnings from cement was due to increase in loading. The increase in earnings from raw material for

steel plants was due to the increased loading and increase in rates by change of classification. The increase in earnings from fertilizers was due to the increased loading and higher lead. The increase in earnings from pig iron and finished steel was primarily due to higher lead. Exhibit 6 gives the change in freight classification and rates since 2000-01.

It was important to note that while the public stance had been that there was no tariff increase, iron ore had been subject to tariff increases by revision of classification. A significant share of increase in earnings from iron ore for exports and raw material for steel plants would be attributable to this. Taking the case of iron ore for exports, a maximum of Rs 277 crores (current yield multiplied by the increase in traffic) out of the increase of Rs 733 crores was attributable to the increase in loading. The balance would be attributable to the tariff increase since there was no change in lead. Also, some of the extra income was attributable to (i) busy route surcharges, (ii) busy season surcharges and (iii) priority allotment of rakes for willingness to pay at two classes higher.

A comparison of the loading figures between 2005-06 and 2004-05 shows that increased loadings have been achieved in coal, other goods, raw material for steel plants, and iron ore for exports. The percentage increase with respect to 2004-05 was most significant for other goods (25%) followed by raw material for steel plants (19%), cement (14%), and iron ore for exports (13%). The increase in coal was 8%. The increased axle load would account for a maximum of 14%. The rest would be due to increased rake availability as a consequence of (i) improvements in wagon turnaround, especially in iron ore circuits due to the efforts towards 24 hour loading in sidings in SER and SWR, and reduced train examination and (ii) use of covered wagon rakes which would otherwise have gone empty in SWR.

A whole host of schemes have been put in place to attract the freight customer, since July 2005 [MOR, 2006-b]. These include mini rakes for the small customer, volume discounts for the large customer, lean season discount scheme, long term freight incentive scheme, loyalty discount scheme, discounts for providing traffic in the empty direction, incentives at terminals like engine on load and construction of sidings, wagon investment scheme etc.

An analysis of the above brings out the effect of the initiatives of (i) increased axle load (ii) reduced wagon turnaround and (iii) market oriented tariffs and schemes.

2.2 Passenger Earnings

The passenger earnings in 2005-06 had gone up by Rs 1013 crores (7.2%) over 2004-05. Disaggregate data is not yet available to analyse the elements of this increase.

The possible reasons for the earnings in 2005-06 being higher were due to initiatives in running 24 coach trains, deploying additional coaches in well patronised trains and even running of additional trains. These initiatives were made possible by ensuring analysis of demand based on the passenger reservation system data and requiring the field level officers to respond to it by additional supply where possible.

In the passenger segment, a reduction of one rupee was offered in the second class ordinary fare, 10% in ACII and 18% in ACI. There had been increase in charges for cancellation, more trains being made superfast with a reduction in time and thus imposing a superfast charge, booking tickets from an origin different from the place of reservation, separation of tickets if a through a journey involved more than one train or a break of journey – thus not offering the telescopic benefits (the last charge has since been withdrawn).

The tatkal scheme, targeted at the 'last minute' passenger was extended first from one day to three days and then to five days. This offered a window of opportunity to increase earnings through differential pricing, based on the time of booking.

Emphasis has been laid on what has been called 'touch and feel' initiatives to improve the service quality for the passenger.

Consequent to the above initiatives, the growth in number of passengers has been 7.5% in 2005-06 over 2004-05 and 7.1% in 2004-05 over 2003-04. The growth in the earlier three years had ranged between -2.4% to 5.4% (Exhibit 1).

2.3 Other Earnings

The increase in other earnings of Rs 599 crores (24.2% over 2004-05) came through parcel, catering, advertising, dividends from the public sector units under the ministry etc (Exhibit 7). The increase of 24.2% in 2005-06 over 2004-05 followed a similar growth of 24.7% in 2004-05 over 2003-04. In the earlier years, the growth in this segment had been marginal. this source of revenue had not received as much focus as in the past two years A slew of initiatives on these areas had been implemented over the past two years, making it attractive for private parties to take advantage of the market opportunity that IR could offer.

Parcel

For the parcel business, even though the leasing concept had been in place earlier, the implementation had been slow due to poor market response. This was given a thrust over the past two years. In a correspondence to the GMs in July 2005, the MR urged, "The GMs should ensure that all tender notices concerning parcel contracts are issued within 15 days and tenders are finalized within 2 months from the date of receipt of this letter." The zones were empowered to fix up leases if they could get a bid at 20% more than the previous year's earnings.

Catering

Catering was an essential service to IR passengers, both on the trains (mobile) and at the stations (static). Outsourcing in catering through the IRCTC was a major initiative, which received increased attention during the past two years. Like parcel, in the MR's correspondence to GMs, a sense of urgency was communicated focusing on the need to quickly finalize the catering contracts within three months of issuing the tender. Open competitive bidding, many times having to deal with pressures (including court litigation) brought by incumbents, had been a strategy to unlock the potential of this

business activity. The political stature of Mr Lalu Prasad and his ability to deal with such pressures had enabled the GMs and IRCTC to move forward. Even then, at the end of the year, there were pending cases in courts.

Advertising

As stated by CCM, NR, "easy processing of innovative ideas for advertising was put in place." This enabled zonal railways to be more proactive on this front. As an example, the NR doubled its advertising income from the three major terminal stations: Delhi, New Delhi and Hazrat Nizamuddin in two years. The increase in earning from advertising had been even more significant in the CR and WR, leveraging the Mumbai area. The overall IR earnings had gone up from Rs 50.2 crores in 2004-05 to Rs 78.1 crores in 2005-06.

2.4 Overall Strategy

The country's economy was growing faster than before, moving from the 4% to 6% GDP growth rates (from 1996-97 until 2002-03) to the 8.5%, 7.5% and 8.4% achieved in 2003-04, 2004-05 and 2005-06 respectively. This growth environment offered an opportunity for IR and had a significant impact on the turnaround.

In the freight business, there was focus on *higher volumes*, on the premise that marginal revenues were significantly higher than marginal costs (Exhibit 8). This was done with the objective of *lowering the unit costs*, resulting in the record surplus.

The strategy for freight rates made a clean departure from the past (the nineties, when rates were increased and high value finished goods suffered a greater increase in rates than low value raw materials) by (i) *freezing freight rate increases* and (ii) *rationalising the commodity classification* to benefit the high value goods and charge more from the low rated commodities (Exhibit 6).

The strategy of *higher volumes* was also carried through in the passenger business. The concept of *revenue management*, where in differential prices could be charged for differential services like tatkal and superfast were leveraged.

In the other business areas of parcel, catering and advertising, the strategy of *outsourcing through public private partnership* and *wholesaling rather than retailing* was adopted.

Underlying all this was the strategy of *increasing asset utilisation.*

2.5 Proposed Initiatives

Continuing and building on the strategies adopted, the focus for the future is on capacity enhancement, reduction in unit cost, reducing transit times and having world class terminals.

Freight

The MR, with inputs from the RB, has proposed various initiatives towards (i) improving the wagon productivity (ii) improving the mobility of wagons (iii) running of higher axle load trains (iv) improvements in asset liability and (v) infrastructure development for reducing transit times.

Exhibit 9 provides a perspective on the freight traffic trends in IR. Over a thirty year horizon, coal has become the most important commodity for IR. Other commodities had reduced in significance, but have the potential for the future, especially due to growth in container traffic and other customer oriented schemes. The wagon turn around has been reducing consistently from a peak of 15.2 days in 1980-81 to just over 6 days in 2005-06.

Passenger

A recent initiative has been providing automatic upgrades to passengers in case of vacancy in a higher class, while there is a waiting list in a lower class and increasing the number of superfast trains. The MR has suggested a range of initiatives focused on (i) reducing passenger losses by increasing volumes by increasing the length and occupancy of trains (ii) modifying train length and composition based on passenger profile management (analysis of the passenger reservation system data to understand class wise and season wise occupancy of trains) (iii) increasing average speeds of trains (iv) providing affordable air-conditioned travel for the poor and (v) improved design of coaches.

Related 'touch and feel' initiatives at stations and on board trains focused on the passenger would be stepped up, driven by the zonal GMs and executed through IRCTC.

Exhibit 10 provides a perspective on the passenger traffic trends in IR. In terms of passenger earnings, the long term trend in earnings shows a growth in second class mail/express and upper class and a reduction in second class ordinary. The trends in number of passengers are similar. This reflects an increasing focus on the long distance reserved passenger rather than the short distance unreserved passengers. Between suburban and non-suburban, the originating passengers are more for suburban, while it is the reverse in earnings.

Others

Parcel, catering and advertising are expected to witness more aggressive efforts. In his budget speech in February 2006, he described the outcomes and process as, "Present capacity utilization in parcel is less than 25% which is causing a loss in the parcel business. Certain measures were employed in parcel business in the current year which has registered a growth of 30% in parcel earnings. Open tenders were invited with reserve prices set at the initial rates and if inadequate response was obtained, the prices were reduced to 50% in 2nd round and then to 25% in 3rd round."

Initiatives focused on the passenger being implemented by the IRCTC are (i) improving the quality of the ticketing transaction, (ii) improving value added and basic

services at stations, (iii) passenger amenities on board trains, especially as an integrated service, (iv) low cost hotels and (v) leveraging tourism business.

Investment

To support the above, appropriate investments are being considered. The focus has been on low cost, short gestation and high return projects. Route based throughput enhancement works are being aggressively pursued by relaxing any cap on resource availability. The other thrust areas are gauge conversions to improve the BG network flexibility, sidings and the dedicated freight corridor. Exhibit 3 provides a perspective on the investment trends in IR.

3. Critical Appraisal: Strategies

As we review the initiatives behind the 'turnaround,' it is clear that significant dynamism has been brought in to leverage value from a whole range of business possibilities.

Freight

The strategy of higher volumes has done well for the railways. Increasing the axle load has been a major driver for this. The focus on improving wagon turnaround has been a key support for this. However, the implications of increasing the axle load and relaxing the examination norms for improving wagon turnaround need to be studied scientifically rather than just empirically. In view of the fact that increase in axle load had a significant role in the turnaround of IR, this has been separately dealt with as a case study [Raghuram and Shukla, 2006].

The tariff strategy in the 90s had not recognised the market reality, especially as a consequence of the liberalisation. Corrective strategies in terms of rationalisation of freight classes had begun from 2002-03, with a reduction from 59 classes to 32 in one year (Exhibit 6). These strategies had continued over the past two years, bringing down the number of classes to 18. More significantly, in the past two years, the approach to freight tariffs had recognised the market scenario and price elasticity of demand where in (i) IR has a competitive advantage in the generally 'low rated' bulk raw materials and can afford higher rates and (ii) IR faces tough competition in the generally 'high rated' finished goods and cannot afford higher rates. Exhibits 6 and 11 provide perspectives on the tariff strategies and shares of major commodities. The net result has been an increase in volumes and revenues, and more importantly an *increase in market share.* Cement, coal, and iron and steel are examples. POL is a commodity where freight rates were reduced and there was gain in lead. For an organisation, generally charged with losing market share, the 'turnaround' in regaining market share especially in 'high rated' commodities is indeed commendable.

On the tariff strategy, it is important that the stance that tariffs have not been increased be underplayed, since tariffs have actually been increased, and significantly so in the case of iron ore, by reclassification. However, it would appear that the tariff increase had been "accepted" by the customers, primarily because iron ore selling rates in the international markets had gone up significantly (88.9% increase in 2004-05 with

respect to 2003-04, and 23.5% increase in 2005-06 with respect to 2004-05 [Business Line, July 26, 2005 and FIMI, 2006]). Information from Chakradharpur (SER), Hubli (SWR), Nagpur (CR) and Solapur (CR) divisions reinforced the interest shown by customers in the various schemes announced by the IR.

While the higher volumes and market oriented tariffs have increased revenues under the scenario of economic growth, the issue of customer oriented strategy development is still in question. One of the important lacunae in IR is its ability to listen to the customers. In spite of various initiatives, the approach is essentially supply driven. While the important customers have appreciated the recent initiatives in increasing IR's traffic handling ability, they have been unhappy with the unilateral approach. Concerns like changes in rates, demurrage free hours, loadability of wagons, etc have been repeatedly voiced (Exhibit 12).

Passenger

The emphasis on increasing volumes has done well in numbers, and revenue to an extent. There have been earlier years when revenue growth has been higher.

The public stance of not increasing fares has come up for criticism in the media. While the base fares have not been increased (and in fact reduced), charges for various related services have been increased. Exhibit 13 gives the excerpts from a news item that takes a critical view of such charges. However, these charges are relatively insignificant compared to the volume based revenue.

The 'reclassification' of trains as 'superfast' has certain problems. A train was considered 'superfast' if the average speed between origin and destination was at least 55 kmph. Such trains charged Rs 20 per ticket more in second class and sleeper, and Rs 30 in the upper classes. Timings of many trains which had an average of just below 55 kmph were readjusted to make them 'superfast.' Efforts are on to review the entire passenger train timetable, so that a 'zero based' approach is evolved, rather than newly introduced trains having to weave their way through schedules already set for existing trains. The July 2006 passenger railway timetables have been issued as being valid only till November 2006, with the idea that a more streamlined set of timings would be put in place.

However, there are inconsistencies, especially when we see that there are many trains which have significant common route segments and timings, but some being superfast and the other not superfast (Exhibit 14). In such segments, the passenger pays superfast charge on one day and not on the other for the same service enjoyed. In fact, a better strategy may be that for all trains, superfast charges are levied if the average between the pairs of stations that the passenger is travelling provides a superfast service (a speed of above 55 kmph) or not. The floor level for the superfast speed would also need to be increased, since it is significantly lower than the maximum speed

The recent initiative of providing automatic upgrades to passengers when there was vacancy in a higher class and waitlisted passengers in a lower class had proved to be an image builder for the IR. Whenever an upgrade does happen, then at least two passengers are happy. (Initial data shows that on the average there are two upgrades for every wait listed person provided confirmed accommodation. Thus goodwill is

generated among three passengers.) The revenue earning potential of this has yet to be demonstrated, since even though on the aggregate, waiting lists are longer in the lower classes, it is not clear that the probability of there being a vacancy in a higher class with a waiting list in a lower class is significant.

Others

While parcel earnings were going up, there was a basic question of whether the IR should be in this business. The alternate use of line capacity where parcel trains run was an issue for consideration. Regular freight trains and container specials (which could be carrying the parcel) had greater revenue potential. Similarly, in passenger trains, the alternate use of the space for carrying passengers might be a more viable proposition, unless safety requirements made the non-passenger space imperative in trains.

On catering and advertising, as discussed in exhibit 7, the potential for revenue increases is significant. The driving principle would be that the IR passenger is the target market for such activities leveraging of interested stakeholders would be the key.

4. Critical Appraisal: Processes

Having attempted an appraisal of the strategies, we now critically examine some of the key processes behind them. Discussions with various Board Members and ex-Members by the author brought home the point that there had been a significant increase in initiatives over the past two years. “This has brought in a confidence and up-beat attitude right through the organization”. More significantly, many had been brought to a logical conclusion, through speedy execution. As seen from Exhibit 8, on the freight business, what was projected in June 2005 was realised.

For example, the increase in axle load [Raghuram and Shukla, 2006], which had been considered by the IR even as early as 1982, never saw an ‘ownership’ that could see the initiative through. Based on some approved extra loading for commodities like slack coal in 1997 and run-off-mines coal in 1998, the RB had taken a decision in early May 2004 to increase the chargeable carrying capacity (CC) to CC+2 for all commodities loaded in BOXN/BOXNHS wagons. As per section 72 of the Indian Railways’ Act 1989, the maximum CC for wagons had to be fixed by the Central Government and hence the approval of the MR was required. The RB decision was soon approved by Mr Lalu Prasad. (He had become the new MR on 23rd May, 2004). However, later that year, during field visits, he came across many wagons which were significantly overloaded. This set him thinking that there should be potential to formally increase the axle load.

Initially, there was resistance from the engineering department, fearing implications on track and bridges, and consequently on safety. The process of increasing the axle loading required many departments and sub-institutions (RDSO and CRS) to get aligned. A consistency of direction from the MR got the initiative going. The RB, after taking into consideration the views of RDSO, decided to increase the axle load to CC+8+2 on a trial basis, to be monitored by RDSO. This trial period has since been

extended for one more year until 30th June 2007. From a safety perspective, the CRS sanction has been received for most ZRs and is under process in other cases.

Similarly, the initiative on providing automatic upgrades to passengers was initially resisted as a loss making proposition. Again, consistency of direction from the MR got the initiative going.

All major policy initiatives require the MR's approval. Hence the role of the MR vis-à-vis the RB becomes critical. Exhibit 15 gives the top management structure of the IR.

4.1 The MR

As stated above, given the implicit power structure, the MR becomes the effective CEO of the IR. He is thus in a position to drive initiatives.

Based on an analysis in [Raghuram and Gangwar, 2006], the key factors affecting the IR's financial performance over the past 20 years have been summarized as:

- IRFC: 1986 (positive effect due to facilitation of market borrowings for wagon procurement, negative effect due to high interest rates)
- CONCOR:1989 (positive effect due to focus on containerized movement of non-bulk)
- Project Unigauge: Early 90's (negative effect in the 90's, including due to reduction in track renewal works, positive in the recent and future years)
- Fifth Pay Commission: 1997-98 (negative in the late 90's)
- Special Railway Safety Fund: 2001-02 onwards (positive in the recent and future years)
- Reorganization from 9 to 16 zones: 2001-02 and 2002-03 (positive in the future years, due to greater focus)
- Focus on PPP format for investments, catalysed through RVNL: 2002-03 onwards (positive, due to the ability to leverage other stakeholders' funds).
- Market oriented tariffs (positive)
- Focus on increasing asset utilization: 2004-05 and 2005-06 (positive, provided implications on asset wear and tear are appropriately dealt with)
- Competition in container movement: 2006 (expected to be positive, though implementation has to be seen)

Almost all the above initiatives were moved by the RB and brought to finality by the MR (except the Fifth Pay Commission, which was a Government of India initiative). A list of the MRs is given in Exhibit 16.

The tenure of Mr Jaffer Sharief in the early 90's saw the initiative of project uniguage taken to an irreversible state. While there was resistance from within the IR on a project of this magnitude which took away funds even from normal maintenance and replacements, the initiative has resulted in tremendous increase in connectivity and flexibility of operations. Zonal railways like ECR, NER, NWR, SCR, SR, SWR, and WR and the regions they serve have benefited significantly from this. The tenures of Mr Ram Vilas Paswan and Nitish Kumar saw the restructuring of IR from 9 to 16 zonal railways. This has given increased focus to traffic in many of the regions. SWR is one

railway which has leveraged this focus. However, this has increased the number of interchange points, thus posing a greater challenge to operations. Mr Nitish Kumar had also set in motion the tariff rationalisation strategy.

The SRSF was set up with a corpus of Rs 17,000 crores (with Rs 12,000 crores being a contribution from the Government of India) in 2001-02 for renewal and replacement of over-aged assets. This initiative, when completed in 2007-08, would modernise and strengthen track infrastructure and other assets.

Apart from the above, initiatives that directly benefited the passenger segment have been a mainstay of most of the MRs. Amongst the most significant were the passenger reservation system and Shatabdi class of trains initiated by Mr Madhav Rao Scindia.

Initiatives of market oriented tariffs, asset utilization and competition in container movement are attributable to Mr Lalu Prasad.

4.2 The Style of the Present MR

The operationalisation of the various strategies over the past two years depended significantly on the leadership style of Mr Lalu Prasad. *It was a common sense based approach, showing an astute understanding of the market reality, the asset base of the IR and the expertise and capability of the IR's management and systems. Consequently, he followed this up with the principles of leveraging the assets ("milk the cow fully") and empowerment and delegation. With whatever has been achieved in the 'turnaround,' Mr Lalu Prasad has demonstrated that good economics is good politics.*

Non Interference: Dealing with the RB

"Mr Lalu Prasad is a non-interfering, yet aware MR, who sets the goals and expects results." was stated by most of the ex-Members and the current Members of the Board. "This has given him a position of strength to build organizational alignment to see through fundamental initiatives." "It appears that the current Members of the Board function as a cohesive entity, due to the force of expectation on legitimate initiatives."

Direct Approach: Communication to GMs

To build alignment for execution, the MR periodically communicated to the GMs, setting and reinforcing priorities. Exhibits 17 and 18 give two sample letters sent on 1st April, 2005 and 27th March, 2006. The latter letter has urged a freight loading target of 800 mt, internal generation (fund balance) of Rs 20,000 crores and operating ratio of 77%. The annexures to the letter included sharp actionable statements in the areas of freight, passenger, and parcel and catering.

Caring Attitude: Staff and Unions

Mr Lalu Prasad had a positive approach in dealing with the staff and unions. Given the financial performance of the IR, the unions wanted a doubling of the contribution to the staff welfare fund. He offered them more. When he saw that gangmen who had to walk on the stone ballast were not provided footwear as part of their equipment, he ensured

the same. Running crew had to carry their own provisions for food to be cooked in the running rooms, many times at odd hours. He directed that all running rooms must outsource food and provide the same to the crew at subsidized rates.

Whenever concerns were raised about downsizing of the IR, he came out with his Hindi one liner which translated to, "Downsizing may make IR thinner, but not necessarily healthier." On presenting the future, his pitch was, "regenerate competitiveness and leverage resources rather than restructure and downsize." He believed in instilling hope and excitement rather than fear and anxiety.

Image Building: Media

Given his penchant for wit and one liners, Mr Lalu Prasad was sought after by the media. Whenever there was an opportunity to highlight an initiative or an achievement, advertisements were released. Exhibit 19 gives an example of two advertisements of initiatives in the freight and passenger segments respectively.
Exhibit 20 provides a comparative brief on "Sizing up the Railway Ministers" [Indian Express, April 2006]. In recognition of his initiatives, Mr Lalu Prasad has also been ranked as the second best minister in the current cabinet [India Today, May 29, 2006].

Identifying Right People: Choice of OSD

In this tenure, in all the dealings of the MR with the IR, a nodal person has been the OSD, Mr Sudhir Kumar. He was specially chosen by the MR for this position, based on earlier interactions when Mr Sudhir Kumar held different positions in Bihar as an IAS officer. He joined as the OSD on 1st September, 2004. It had been clarified between him and the MR that his role would be to provide the link between the MR and the RB to translate the MR's vision for IR into action.

The first task that the OSD took upon himself was to understand the functioning of the IR and what has been said about the IR in a studied manner. In his own words, "I read whatever reports on IR that I could lay my hands on, and there were plenty. I read various correspondence to understand the decision making processes. I soon realized that the IR had tremendous strengths in its systems that ensured robust decision making." This understanding that he developed gained him acceptance in the RB.

The OSD understood that the IR officers themselves were a source of ideas for innovation, that would be in line with the MR's thinking. He made it a point to be open to ideas from within the IR, so that they could be examined by the concerned functional departments and appropriate action finalized and implemented quickly. Given his unique position, he could cut across the hierarchy of the IR.

Whenever initiatives were taken up, he was relentless in follow up. The initiatives related to axle load increase, market oriented tariffs, reducing wagon turnaround, innumerable freight incentive schemes, passenger profile management, upgradation of passengers, zero based timetabling, leasing of parcel capacity, catering, are among the many which have been followed up for execution. This is even more significant, given that all this has happened through the existing systems and culture of the IR.

The tactic behind the achievements was the balanced use of the MR's support for legitimacy, and in keeping an independence in the departmentally oriented and hierarchical organization that IR was.

A premise that comes forth is that if all it takes is an MR's consistency of direction and follow up to make the giant organization more dynamic, then by implication, the IR is well set in terms of people and a lot of systems, but does not have the structure for a corporate approach to fructify policy initiatives in a timely manner independent of the political leadership, in the context of the transportation requirements for the nation.

4.3 The RB

Most of the initiatives implemented over the past two years (and earlier) have been ideas from within the IR, considered and evaluated by various functional departments in the RB. The RB has played a pivotal role in implementing the initiatives, leveraging the well laid out systems. In the instance of increasing the axle load, the various departments considered the implications before the policy decision and then alerted the zones to monitor the various effects during the trial period.

However, while many ideas had been generated within the IR, the structure of the Board with Members being responsible for different departments often slowed down decision making for innovations. The Board Members had to ensure that their decisions comply with the technical and systemic requirements of their respective departments. Resolution of this for a policy decision often took more time than would be appropriate for a changing environment in a fast growing economy.

The strength of the systems was in the fact that the RB was able to function well on its own for routine and to rally around whenever routine was disrupted (like in the case of accidents).

Thus, most innovations generated in the RB had come to fruition with the active involvement and leadership of the MR. The one notable instance of a Chairman driving initiatives (with the backing of the Prime Minister) was in the early 80's during the tenure of Mr M S Gujral. He had pushed through far reaching initiatives like the idea of block rake movement (which eliminated the need for yard based sorting and marshalling), segregating the wagon stock with different speed and safety characteristics forming homogeneous rakes for enhanced performance, relaxing the examination requirements of such rakes from at each major yard enroute to just the origin, etc. The wagon turnaround data (Exhibit 9), as one performance measure, shows the impact of these initiatives. From a peak of 15.2 days, a reducing trend was established. He had also proposed that the IR should increase the axle load for better throughput and experimented with it. However, after his tenure, the initiative did not sustain on the grounds that it would adversely affect safety.

A list of the Chairmen, Railway Board (CRB), is given in Exhibit 21. The Chairmen have had relatively short tenures. The same would be the case for the Members. Given the relationship between the political leadership and the RB, the implication of this reduced in significance when there is an MR who is committed to getting the best out of the organization.

5. Critical Appraisal: Sustainability

The final question is *whether the strategies and processes are sustainable*.

It is important to recognize that apart from a faster growing economy, the one variable that was different in the past two years of the 'turnaround' was the political leadership. The natural corollary is that sustainability depends on the political leadership.

From the perspective of IR responding to environmental changes in a fast growing economy, what is required is a framework for continued innovation. We shift our focus from just the current strategic initiatives to the process of continuing such initiatives. Towards this, the strategies and processes *can be sustained* if the political leadership is well intentioned and has consistency of direction. Political leadership does not come in through a controlled process. The need is for the professional top management (RB) to be able to respond as a commercially oriented organization with a corporate culture.

Strategies and processes have to be customer centric. The current structure of the organization lends itself primarily to supply driven strategies, where at best the initiatives are what the IR thinks is good for the customer and not necessarily driven from the customers' perspective.

An important strategic tool to evolve customer-centric strategies is *market segmentation*. Exhibit 22 provides an example of a segmentation of the market on the dimension of the nature of the origin/destination for freight traffic, based on 2004-05 data. The most significant flow is from mines to industries, accounting for 303 mt, which is about 50% of IR's traffic. The next largest flow is from industries to distribution centres, accounting for 170 mt, which is about 28% of IR's traffic. These would have implications on planning the logistics, siding and handling automation and ownership, etc. Another interesting statistic that emerges is the role of the port contributing to IR's traffic, either as import or export. Port originating traffic is 59 mt and port terminating traffic is 71 mt, accounting for a total of 130 mt, which is about 22% of IR's traffic. There could be other dimensions of segmentation like size of customer, time value of cargo, geographic origin/destination, monetary value of the cargo, rake load vs non rake load shipper, etc.

Every DRM (the division being the operational interface with the client systems) should be asked to periodically evolve a strategy paper with a ten year time frame, which can then be consolidated at a zonal level. Exhibit 23 gives the zonal and divisional organization of the IR. In the freight segment, periodic workshops should be held wherein key customers discuss what their needs are, with the top management listening. In the passenger segment, periodic market research should be conducted and assimilated to understand the customers' needs.

Strategies and processes have to be scientifically based. This needs a paradigm shift on research, development and training to evolve and sustain *increasing asset utilisation* and new technologies and systems that are world class. There is scope in increasing the asset utilisation in all the infrastructure elements: right of way (track), rolling stock (locomotives, coaches and wagons), and terminals. Given a railway system that has a

natural advantage of scale, investments in research, development and training will yield long term returns, not only from use in IR, but also from global markets.

To sustain the above, IR needs to focus on *organizational restructuring.* Many of the recommendations of the Indian Railways Report submitted in 2001 are valid for the way ahead. These need to be seriously considered (Exhibit 24). Top down restructuring with a focus on customers and merging of cadres, beyond the mid way career are imperatives for the IR. Exhibit 25 provides excerpts from the Tandon Committee Report of 1994, some of which are contestable, but still provide a framework for thought. (This is a suggestion of the consultant which is not yet accepted by IR.)

The 'turnaround' over the past two years has demonstrated that IR is indeed a sunrise sector. With the right moves, nothing can hold it back from being world class.

Exhibit 1: Performance of IR

	2001-02	2002-03	2003-04	2004-05	2005-06*
Gross Traffic Receipts	37,838	41,068	42,905	47,370	54,491
Growth (%)	8.5	8.5	4.5	10.4	15.0
Earnings					
Goods[1]	24,845	26,505	27,618	30,778	36,287
Passengers	11,196	12,575	13,298	14,113	15,126
Other (Coaching, Sundry and Suspense)	1,797	1,988	1,989	2,479	3,078
Total Working Expenses	36,293	38,026	39,482	42,759	45,575
Growth (%)	4.7	4.8	3.8	8.3	6.6
Net Misc. Receipts	793	788	1,056	662	-912
Operating Ratio	96.0	92.3	92.1	91.0	83.7
Net Revenue	2,338	3,830	4,478	5,273	8,005
Net Dividend Payable	1,337	2,715	3,387	3,199	3,668
Net Surplus	1,000	1,115	1,091	2,074	4,337
Fund Balance	1,527	3,391	5,228	7,785	12,141

[Source: MOR, Various Years-a; *RB, 2006, Internal Correspondence]

Goods					
Earnings[1] (Rs crore)	24,845	26,505	27,618	30,778	36,287
Growth (%)	6.6	6.7	4.2	11.4	17.9
Tons (m)	493	519	557	602	667
Growth (%)	4.0	5.3	7.3	8.1	10.8
NTKM (b)	333	353	381	407	441
Growth (%)	6.7	6.0	7.9	6.8	8.4
Passenger					
Earnings (Rs crore)	11,196	12,576	13,298	14,113	15,126
Growth (%)	6.5	12.3	5.7	6.1	7.2
Number[2] (m)	5,093	4,971	5,112	5,475	5,886[#]
Growth (%)	5.4	-2.4	2.8	7.1	7.5
PKM (b)	491	515	541	575	630[#]
Growth (%)	7.4	4.9	5.0	6.3	9.6
Others					
Other Coaching, Sundry and Suspense Earnings	1,797	1,988	1,989	2,479	3,078
Growth (%)	69.5	10.6	0.1	24.6	24.2

[Source: MOR, Various Years-a; *RB, 2006, Internal Correspondence; [#]RSC, 2006, Internal Correspondence]

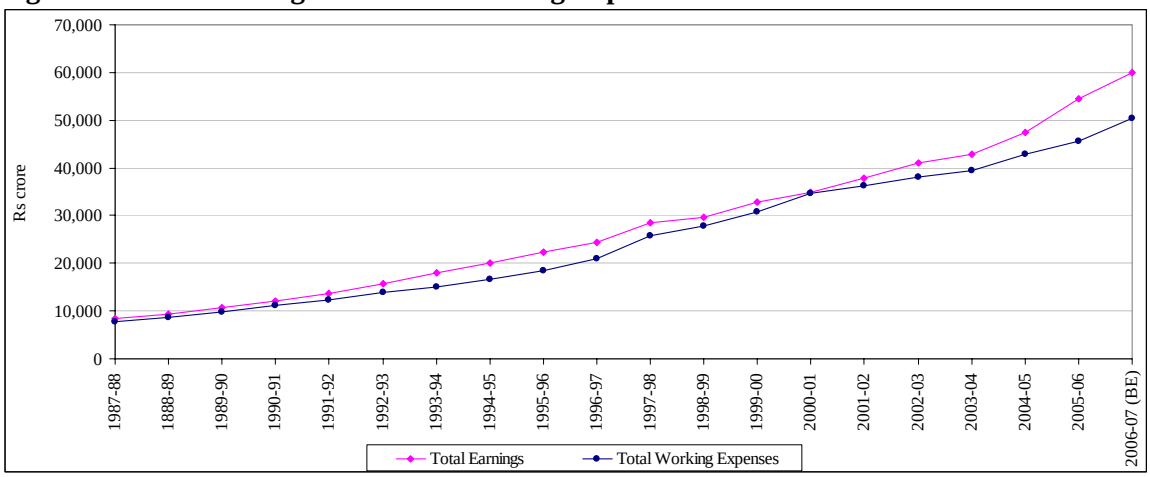
Note: [1]The earnings include the 'Miscellaneous Goods Earnings' due to wharfage, demurrage etc.
[2]Number of passenger figures for 2001-02, 2002-03 and 2003-04 are excluding 'Kolkata Metro.' In 2004-05, Kolkata Metro passengers were 98 millions.

Exhibit 2: Performance Review (1987-88 to 2006-07)

The trend of IR's total earnings and total working expenses are shown in Figure A and Figure B. The good years were between 1993-94 to 1995-96, after which the expenses caught up with the revenues until 2000-01, when the net revenue shrunk to a little over Rs 1000 crores. The situation started improving steadily to reach an actual net revenue of just over Rs 8000 crores in 2005-06, for a total earnings of Rs 54,404 crores. This figure, collated after the financial year ended 2005-06, has been a significant increased achievement over and above the budgeted and revised estimates for the same year. The increase in net revenue is attributed significantly due to better utilization of freight rolling stock.

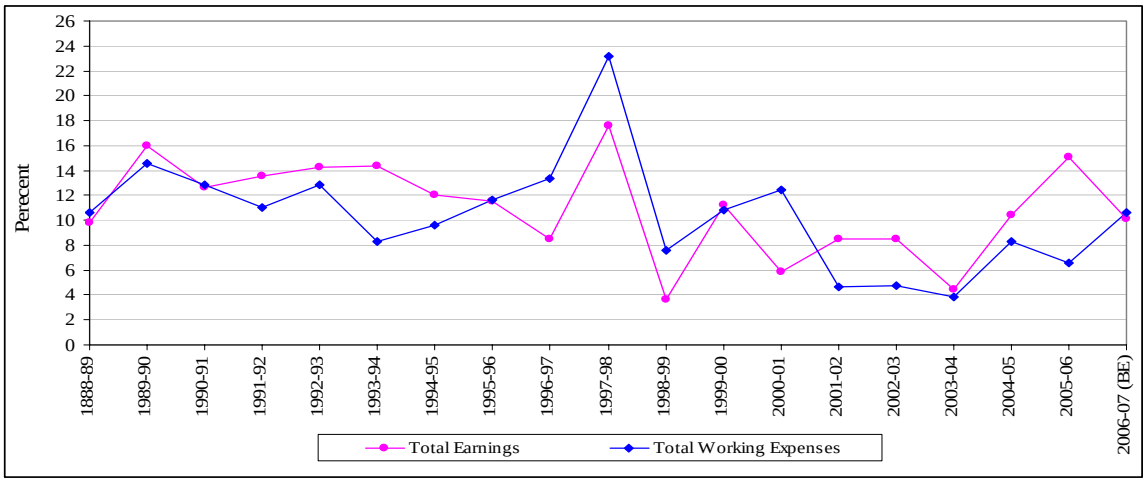
The budgeted estimate for the year 2006-07, before the actuals for 2005-06 were collated, is total earnings of nearly Rs 60,000 crores with a surplus of about Rs 7500 crores. The actuals are expected to be at least 10% higher on earnings and 50% higher on the net revenue.

Figure A: Total Earnings and Total Working Expenses



[Source: MOR, Various Years-a; MOR, 2006-a]

Figure B: Growth Rate for Total Earnings and Total Working Expenses



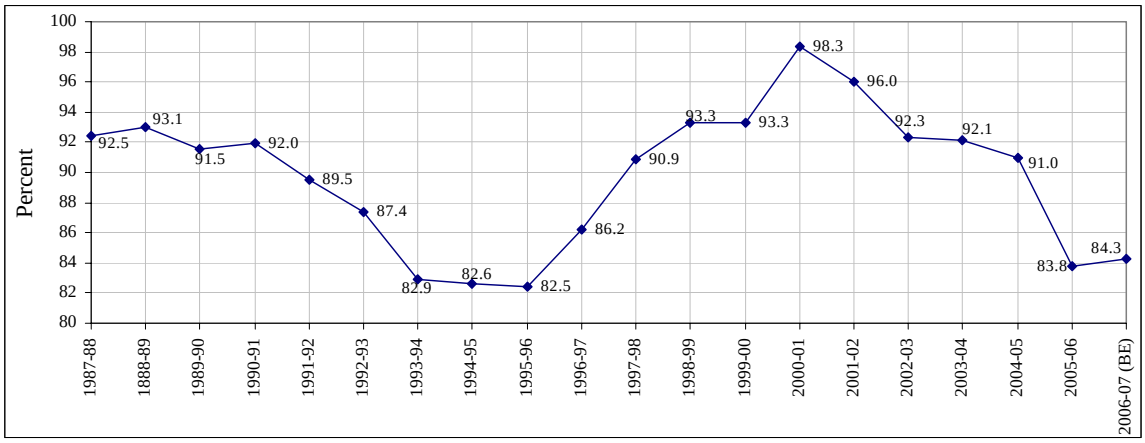
[Source: MOR, Various Years-a; MOR, 2006-a]

Based on the ratio of total working expenses to total earnings, a parameter called the operating ratio is assessed as a percentage. Figure C presents the operating ratio since 1987-88.

The operating ratio had reached a peak of 98.3 in 2000-01, reflecting a relatively poor performance. After that, it had reduced year on year till 91.0 in 2004-05. It dropped sharply to 83.8 in 2005-06. (As stated above, this was both due to better utilization of rolling stock and changes in accounting practice.)

The IR is targeting an improved operating ratio of 77 for 2006-07. This means that it aims to earn Re 1 by spending 77 paise in 2006-07, against 83.8 paise in the last financial year [Business Line, May 6, 2006].

Figure C: Operating Ratio

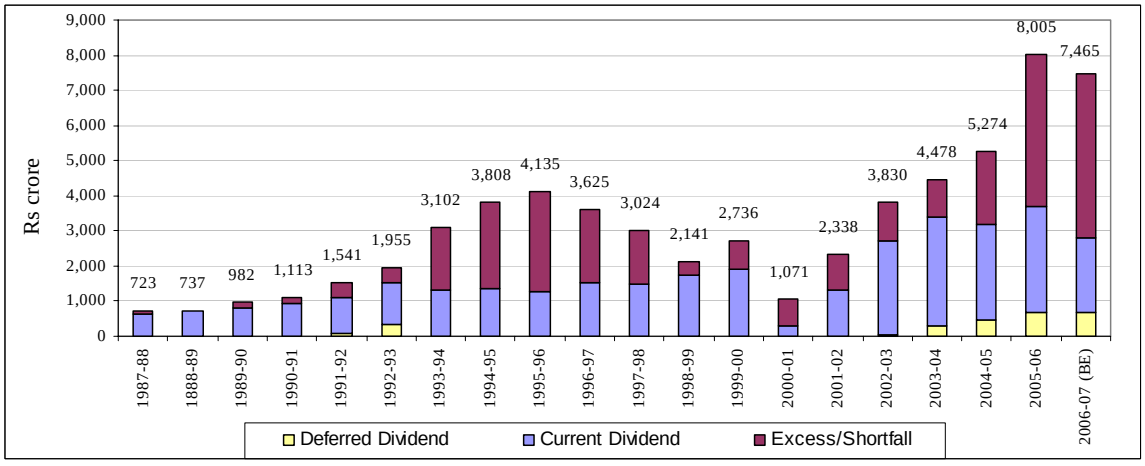


[Source: MOR, Various Years-a; MOR, 2006-a]

The net revenue receipts are then appropriated for dividends payable to the government of India and into various capital funds. Figure D gives the dividends paid out of the net revenues, including when the payment was due to deferred dividends. As can be seen, the deferred dividend payments have happened in the "good" years, which have followed the "bad" years when the IR would have sought deferment of the dividend.

The deferred dividend liability from 1978-79 onwards aggregated to Rs 428.43 crore by end of March, 1990. The amount was cleared by 1992-93. The dividend payable in 2000-01 and 2001-02 worked out to be Rs 2,131 crore and 2,337 crore respectively, out of which Rs 1823 crore and Rs 1000 crore respectively have been transferred to a deferred dividend liability account. This amount is expected to be cleared by 2006-07.

Figure D: Net Revenue Receipts



[Source: MOR, Various Years-a; MOR, 2006-a]
[Source: Raghuram and Gangwar, 2006]

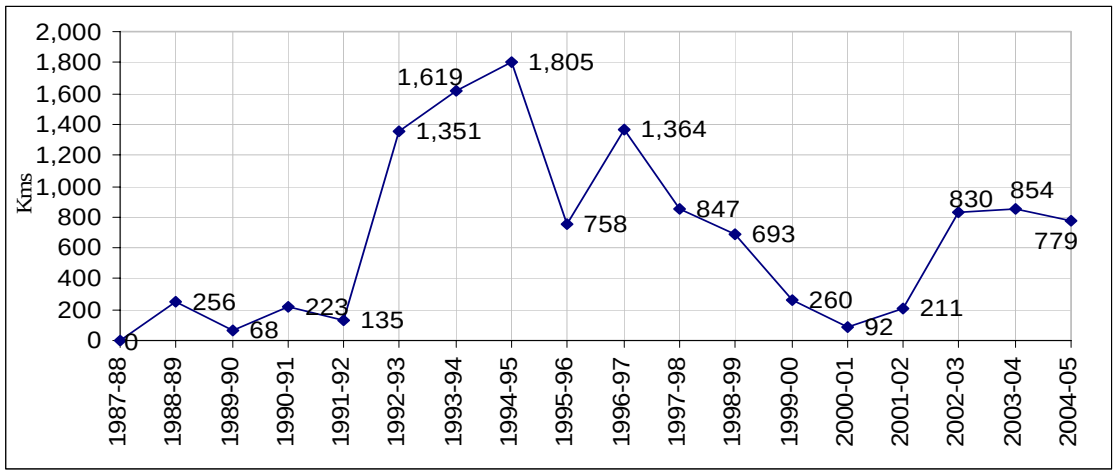
Exhibit 3: Analysis of Past Investment Strategies

A review of the investment record of the past would be in order, not only to assess the shortcomings in the existing planning process but also to identify the changes that are required. There has been an effort on continuity of investment on three items, namely on gauge conversion/doubling, asset replacements, new lines and rolling stock. The focus now is more on throughput enhancement works, terminal infrastructure works, user amenities, and information technology.

Gauge Conversion

While earlier, the policy of gauge conversion had been one of selectivity on high density "bridging" routes, in the early 90s, the IR launched the project "unigauge", in an attempt to standardize in most of the networks. The gauge conversion project, which peaked between 1992-93 to1998-99 (Figure A), had a severe impact on track renewals and to an extent on safety. Both these had a consequent impact on the finances of IR, with the operating ratio peaking to 98.3 in 2000-01. With the safety related investments on IR and a better balance on gauge conversion, the IR recovered from 2002-03 onwards.

Figure A: Gauge Conversion

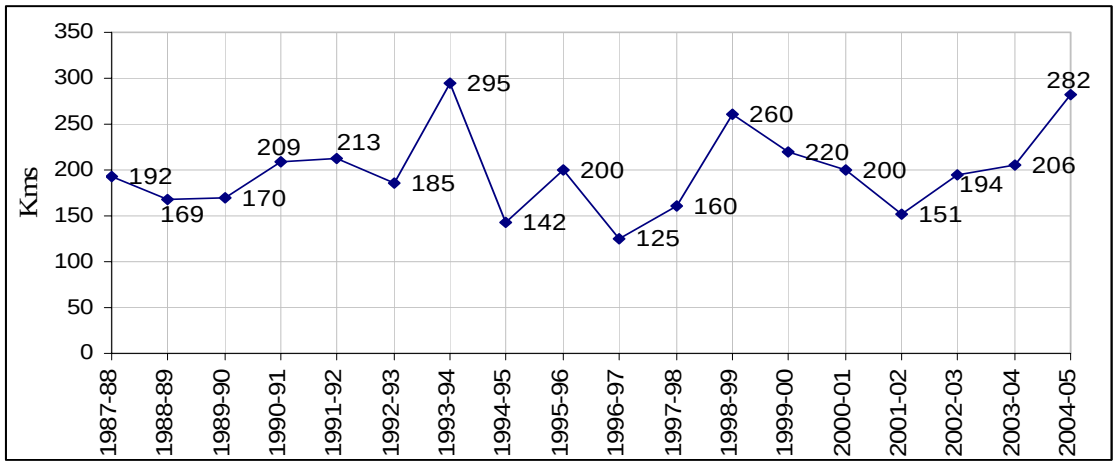


[Source: MOR, Various Years-a]

Doubling

Capacity improvement through doubling has been steady (Figure B), in the range of about 5 percent with the initial priority being on the Golden Quadrilateral and the Diagonals.

Figure B: Doubling

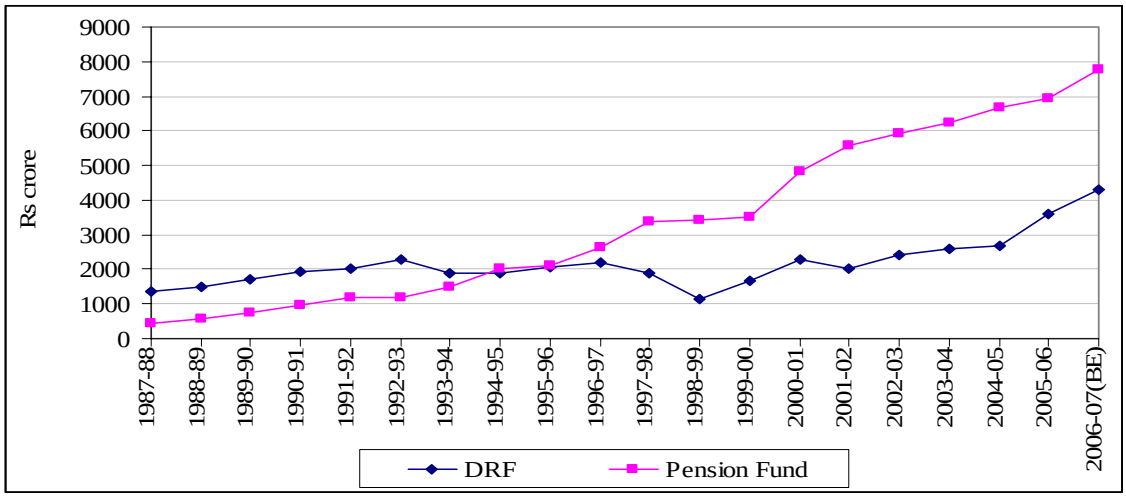


[Source: MOR, Various Years-a]

Track Renewal

The average spends on track replacements has been 16 percent to 23 percent of the Plan Outlay over a period of 20 years. Despite this, resource constraint has had a pronounced impact as, unlike rolling stock, the leasing route is not followed and the funding is only through DRF. Priority accorded to other investments, also funded from revenue surplus (ie gauge conversions funded from Railway Capital Fund) is one reason. Figure C gives the appropriation to DRF.

Figure C: Appropriation to DRF (and Pension Fund)

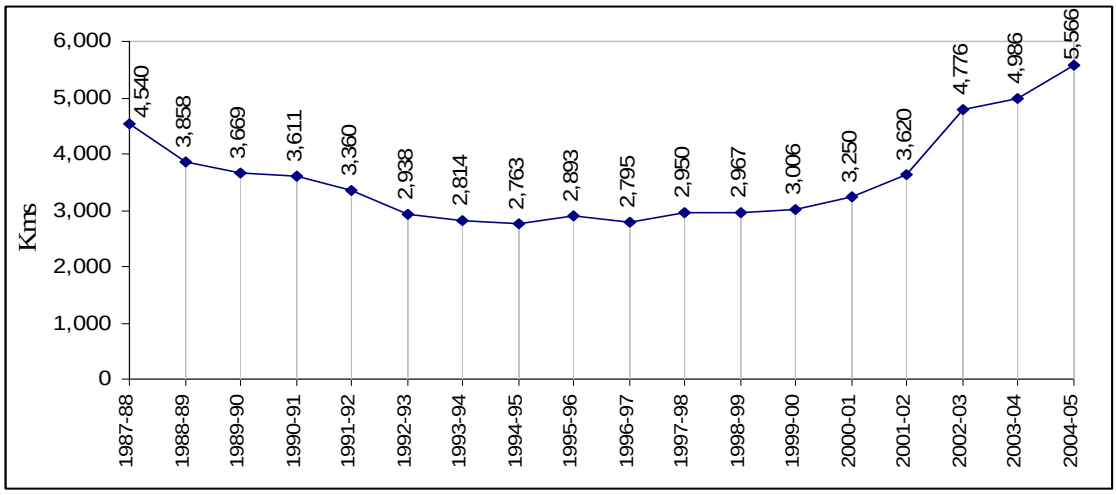


[Source: MOR, Various Years-a; MOR, 2006-a]

Another reason is IR not adhering to a systematic method of accounting for depreciation and the allocations to DRF tend to be adhoc. A third reason is premature renewal of assets, needing extra money. And lastly, as appropriation made to DRF reflects on the operating ratio and the size of net surplus, there is a perverse incentive in the financial structure now to under provide for replacements. *This has been corrected for the last three years and the provision for DRF has steadily gone up from Rs 2692 crores in 2003-04, Rs 3704 crores in 2005-06 and BE of Rs 4407 crores for 2006-07.*

The net result has been a build up of arrears that are now being liquidated through SRSF. One outcome of setting up of this Fund has been decrease in IR's allocation to/spend from DRF, leading to apprehensions of a future re-occurrence of the problem. Figure D gives the trend of track renewals. This shows a clear reduction during the 90s, consequent built of arrears attempt to liquidate the same after 2001-02.

Figure D: Track Renewal

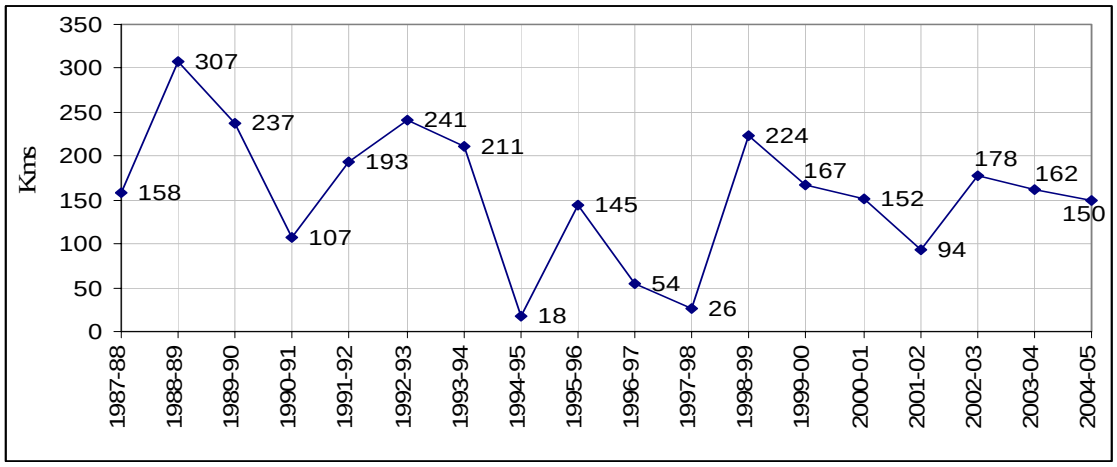


[Source: MOR, Various Years-a]

New Lines

Focus on new lines has also been steady in the long run (Figure E), though varying from year to year. This is attributable to varying lengths of new line projects.

Figure E: New Lines



[Source: MOR, Various Years-a]

Rolling Stock

The emphasis has been on both replacements and additions. Investments have averaged about 40 percent of the Plan Outlay, over the period of past 20 years. In fact, the expenditure has had a steady relationship with earnings, the average coming to around 15 percent. This has been made possible by the IR adopting a combination of measures, such as using DRF and Budgetary Support, leasing via IRFC and deploying various schemes such as Own Your Wagon. Yet another reason to ensure this 'investment stability' has been to ensure work load to manufacturing units. Despite this emphasis, IR was hampered by shortage of rolling stock, contributing to a decline in the share of the transport output.

Information Technology

While IR was among the earliest Indian organizations to bring in computers in the early 70s, there was a lull for over a decade. In the mid 80s, the passenger reservation system (PRS) made its appearance through development support from a public sector software company. In July 1987, MOR established the Centre for Railway Information Systems (CRIS) to be an umbrella organisation for all computer activities on IR. After taking on the PRS, CRIS played the driving role in the Freight Operations Information System (FOIS), which really established only in the recent few years.

CRIS is engaged in the development and maintenance of major computer systems on the IR. Apart from the PRS and FOIS, the following are some of the projects that are handled by CRIS [IRRE, 2006]:

- National Train Enquiry System (NTES)
- Alpha Migration of the PRS
- PRS enquiry through 'Internet,' front ended by IRCTC
- Booking of tickets on 'Internet,' front ended by IRCTC
- Unreserved ticketing system (UTS)

[Source: Raghuram and Gangwar, 2006]

Exhibit 4: Key Statistics of IR (2004-05)

Plant and Equipment		
Capital-at-charge	Rs crore	59,347
Total investment	Rs crore	98,490
Route length	Kms	63,465
Running track	Kms	84,260
Total track	Kms	108,805
Locomotives	Nos	7,910
Passenger service vehicles	Nos	42,441
Other coaching vehicles	Nos	5,822
Wagons	Nos	222,379
Railway stations	Nos	7,133
Operations		
Passenger: Train kms	Millions	517
Vehicle kms	Millions	14,066
Freight: Train kms	Millions	284
Vehicle kms	Millions	31,365

[Source: MOR, 2006-a]

Exhibit 5: Commodity-wise Analysis

	Earnings (Rs crore)		Tonnage (mt)		Lead (kms)		Yield (Rs per ton)	
	2005-06 vs 2004-05	2004-05	2005-06 vs 2004-05	2004-05	2005-06 vs 2004-05	2004-05	2005-06 vs 2004-05	2004-05
Coal	1,365	13,134	23	271	-26	597	9	484
RM for Steel Plants	475	1,302	8	44	-14	358	44	294
Pig Iron and Finished Steel	373	1,403	2	15	116	928	117	920
Iron Ore for Exports	733	1,549	5	36	-1	520	128	425
Cement	550	2,335	7	54	25	537	38	434
Foodgrains	188	2,965	-5	47	-8	1346	123	637
Fertiliser	449	1,193	4	29	81	755	91	415
POL	229	2,683	2	32	19	657	23	838
Other Goods	1,121	3,926	19	74	-30	845	13	532
Misc	27	289						
Total	5,509	30,778	65	602	-16	677	33	511

[Source: MOR, 2006-a; RB, 2006, Internal Correspondence]

Exhibit 6: Change in Freight Classes and Rates

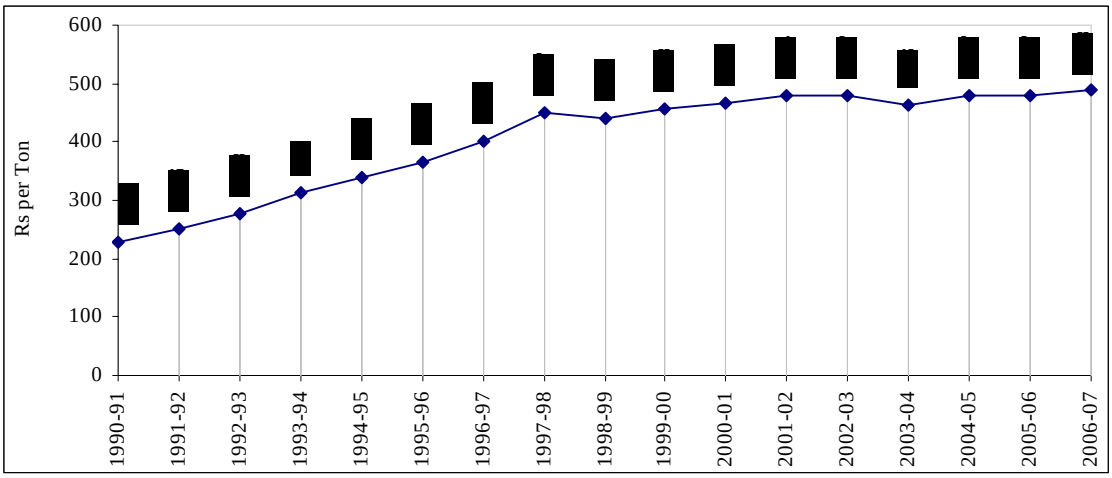
Year	No of Classes	Highest Class	Lowest Class	Ratio between the Highest and the Lowest Class	Changes in Freight Rates
2000-01					The freight rates of all commodities were increased by 5% except Foodgrains, Sugar, Edible Salt, Edible Oils, Kerosene, LPG, Fruits and Vegetables.
2001-02	59			8.0	The freight rates for all commodities excepting essential commodities were increased by 3%. However, freight increase for Coal (not for household consumption) and Iron & Steel (Division A, B and c) was restricted to 2% and for Furnace Oil was restricted to 1%.
2002-03	32	300	90	3.3	Freight structure for base class rationalised resulting in marginal decrease in certain commodities and minimal increase in certain others.
2003-04	27	250	90	2.8	No change in freight rates, only reclassification
2004-05	27	250	90	2.8	No change in freight rates, only reclassification
2005-06	19	240	$90W_3$	2.7	No change in freight rates, only reclassification
2006-07	18	220	LR_5	2.2^1, 4.4^2	No change in freight rates, only reclassification

[Source: MOR, Various Years-d]
Note: [1]With respect to Class 100; [2]With respect to class LR_5

Commodity	Coal	Cement	POL	Iron and Steel	Fertilizer	Food-grains	Limestone & Dolomite	Iron Ore for Exports	Iron Ore for Steel Plants
2001-02	130A	145A	270-290	200A	85-115	95M		120	120
2002-03	130	140	280[1]	190	95			120	120
2003-04	130	135	250[1]	180			120	120	120
2004-05	140	140	220-250	180	100	100	140	120 130 (29/10-26/11) 140 (27/11-31/03)	120 130 (29/10-26/11) 140 (27/11-31/03)
2005-06	140	140	240	180	110	110	160	160 (01/04-30/11) 180 (01/12-31/03)	160 (15/05-31/03)
2006-07	140	140	220	180	110 (01/04-31/05) 120 (01/06-)	110 (01/04-31/05) 120 (01/06-)	160 (01/04-30/06) 170 (01/07-)	180	160 (01/04-30/06) 170 (01/07-)

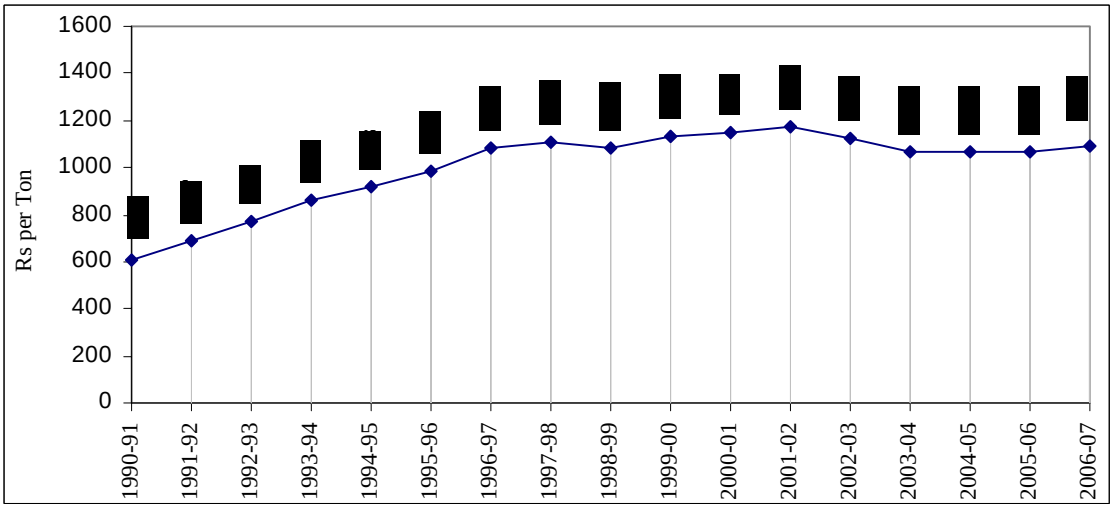
[Source: MOR, 2006-a; MOR, Various Years-d; [1]Businees Line, Nov 26, 2003]

Freight Rate for Cement (@ Average Lead of 561 km)



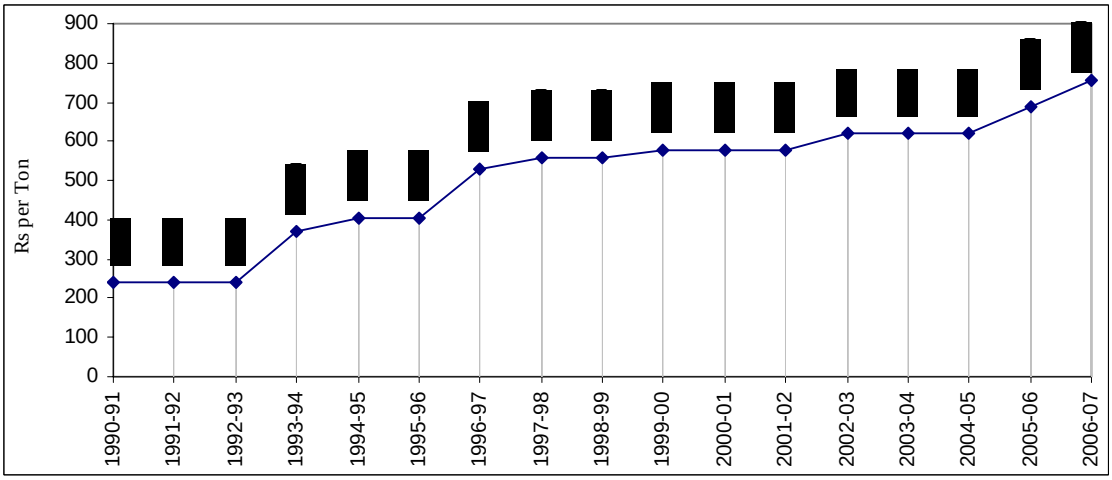
[Source: MOR, 2006, Internal Correspondence]

Freight Rate for Iron & Steel (@ Average Lead of 1002 km)



[Source: MOR, 2006, Internal Correspondence]

Freight Rate for Foodgrain (@ Average Lead of 1177 km)



[Source: MOR, 2006, Internal Correspondence]

Exhibit 7: Other Earnings

Parcel

A passenger train has 16 tons of capacity for carrying parcel. The IR has an annual parcel carrying capacity of around 35 mt, of which the current utilization is 5 mt (14%). This generates a revenue of about Rs 500 crore (Table A). The cost of haulage and parcel office staff is Rs 1800 crore. Thus, the parcel segment is making a loss of Rs 1300 crore per annum [Source: Author's discussion with OSD, RB].

Table A: Parcel Earnings

Year	2001-02	2002-03	2003-04	2004-05
Income (Rs crore)	437	453	444	524

[Source: MOR, Various Years-b]

In the recent past, IR has taken several initiatives to improve the performance of the parcel segment. We excerpt from a study done by CRISIL [CRISIL, 2005]:

1. *Introduction of Millennium Parcel Express*: Operation of express parcel trains, termed as 'Millennium Parcel Express'. The scheme was introduced in March 2001 whereby a parcel train, consisting of a minimum of 10 parcel vans, was leased out to private service providers by inviting bids through open tenders. To start with, two such trains were introduced between Mumbai and Kolkatta/Delhi. These were 'time-tabled' trains with guaranteed lease earnings ranging between Rs.7 to 9 lakhs. The scheme was later extended to six other pairs of stations. As a concept, this was not new, a similar scheme had been tried in the past too. However, these parcel express trains lost their popularity due to non-adherence of scheduled running time.

2. *Introduction of refrigerated vans:* In 2003-2004, IR introduced refrigerated vans on popular long distance trains for perishable commodities. This concept too has not been a success.

3. *Rationalisation of the rate structure*: With the objective of simplifying the booking procedures and optimise capacity utilisation, IR undertook the rationalisation of the rate structure. This exercise commenced in the Budget of 2003-2004 and was carried forward in the 'next years' budget.

4. *Additional leasing of parcel space*: This scheme was introduced by IR from 01-04-2003, whereby additional leasing of parcel space in luggage vans of certain nominated Mail and Express trains was allowed. IR has been leasing parcel space in the front luggage vans of passenger trains since the early 1990s and this was basically a further enhancement of the scheme. Similarly, leasing of the vacant compartment of guard in the front luggage vans to courier services, lowering of reserve price, permitting short term lease of one year etc., were other initiatives introduced from 01-04-2003.

5. *Computerisation of parcel traffic*: Computerisation of parcel traffic for improved results has been initiated by IR. A pilot project, linking Howrah and Delhi area was included in the budget of 2004-2005.

The above initiatives have reduced the direct marketing and operations efforts for IR, while increasing the revenues. The past year has witnessed continuous follow up from the OSD. Innovations like leasing of parcel vans for a round trip have also yielded results. The increased leasing of SLR space through bidding is expected to increase the parcel revenues during 2005-06 and later.

While the figures for 2005-06 have yet to be consolidated, significant increase in earnings is expected due to open competitive bidding, where in flexibility has been given in 2006-07 to reduce the reserve price for leasing from 100% to 50% to 25% for successive rounds of bidding, if required. During 2005-06, the reserve price for leasing was set at the previous years earnings plus 20%.

Catering

IR has formulated a new catering policy in order to improve the standards of food being served in the trains and in the stationary units to generate more revenue. Under this policy, the catering contracts will now be given through an annual open tendering system, under the ownership of IRCTC. Previously, catering contracts were based on an application-based system. Often, an administrative extension would be granted to the incumbent. The rates used were not commercially contested.

With the new policy, as an example, an annual catering contract for an important train like Howrah-Kalka mail was awarded for Rs 83.6 lakhs, when earlier it fetched Rs 5 lakhs. After open competitive bidding, earnings have increased from Rs 13 crore to over Rs 100 crore due to mobile catering. On stationary catering, due to the open competitive bidding, as an example, the license fee at Bandra and Nagpur went up from Rs 78,000 and Rs 32,000 to Rs 16 lakhs and Rs 34 lakhs respectively. The pace of open bidding for stationary units has been slowed down since some of the incumbents have gone to courts to contest IR's move [Source: Author's discussion with MD, IRCTC].

Table B gives key statistics, including earnings from catering. As is evident an increasing share of private participation and the consequent earnings from license fees.

Table B: Catering Statistics

Year	**2001-02**	**2002-03**	**2003-04**	**2004-05**
Total no of pairs of trains catered	228	231	234	250
Pairs of trains continuing as departmental	43	39	38	12
Static catering units	3152 stations	3152 stations	3152 stations	9270 units
Sales turnover of departmental units (Rs cr)	196	202	172	191
License fee (Rs cr)	23	26	29	59
IRCTC income (Rs cr)	--	37	42	76

[Source: MOR, Various Years-a]

While the figures for 2005-06 have yet to be consolidated, significant increase in earnings is expected due to open competitive bidding. Other initiatives through IRCTC are public-private partnerships for: (i) automatic vending machines (ii) base kitchens (iii) launderettes for bed rolls etc (iv) combined catering and hygiene on trains (v) food plazas and (vi) budget hotels. Efforts are on to ensure national brands for food related products.

The potential earning from catering is assessed at over Rs 600 crore per annum, given the annual passenger journeys of 5480 million, an average spend of Rs 10 per journey on catering and license fees at 12% [Source: Author's discussion with OSD, RB].

Advertising

Table C: Advertisement Earnings Rs cr

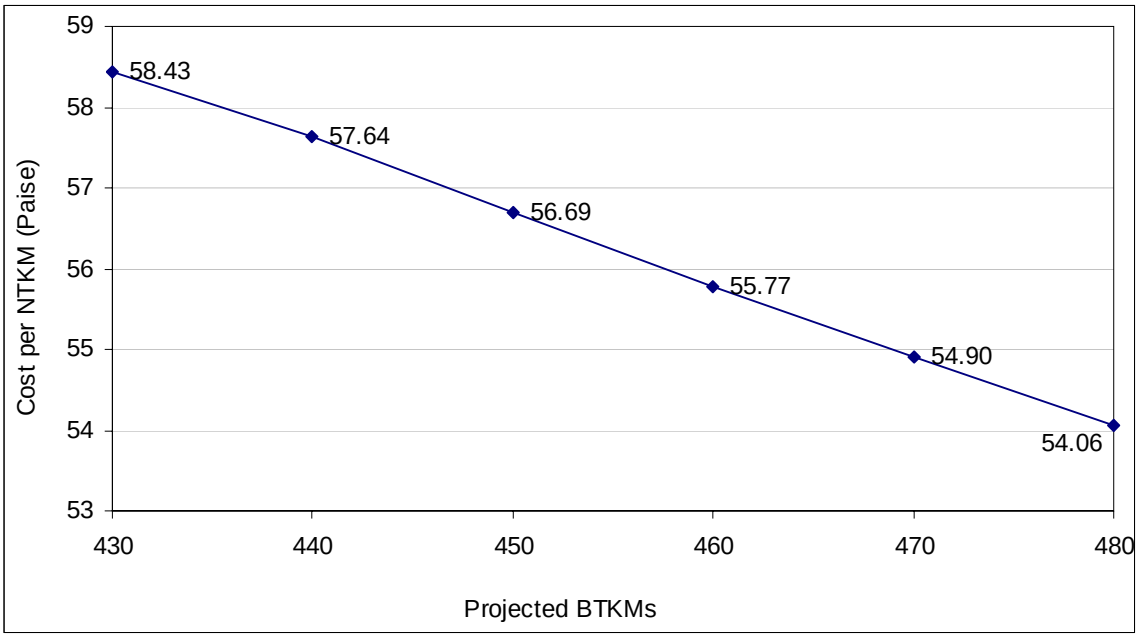
	2003-04	**2004-05**	**2005-06**
WR		14.5	25.7
CR		5.6	13.0
NR	6[#]	9.7	10.4
IR Total		50.2	78.1

[Source: MOR, 2006, Internal Discussion; [#]CCM, NR, 2006, Internal Correspondance]

The various strategies on advertising currently being leveraged are: (i) wholesale leasing rather than retail leasing (ii) leasing for a division as a whole (iii) open competitive bidding and (iv) trains and wagons. This earning option is expected to yield significantly higher returns in the future.

Exhibit 8: Marginal Net Revenue Analysis for Freight

Cost per NTKM (Base Year 2005-06)



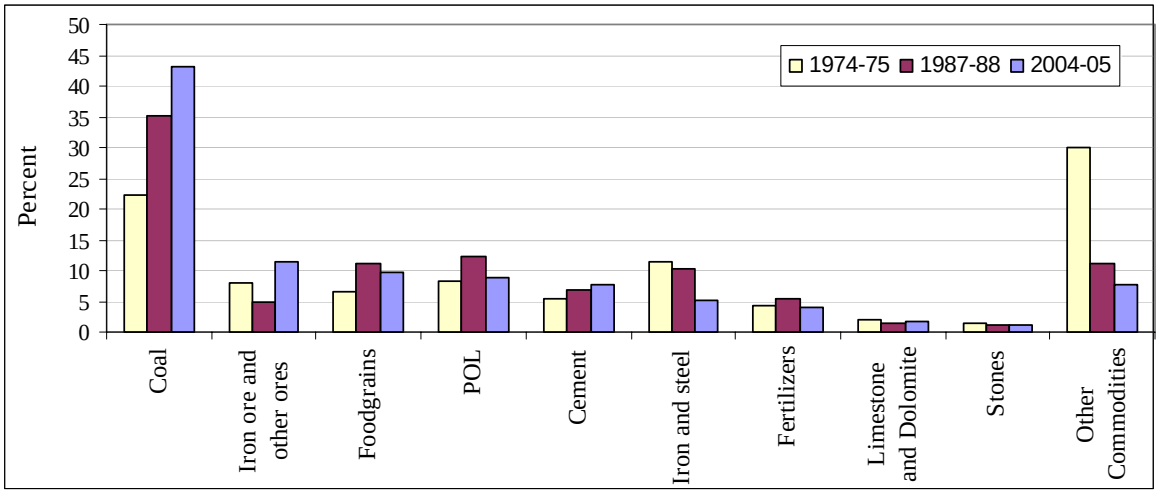
	2000-01 (Actual)	2005-06 (Projected)
Realisation per NTKM (Paise)	74	77
Cost per NTKM (Paise)	61	56
Margin per NTKM (Paise)	13	21
Total BTKM	310	460
Net Surplus (Rs crore)	4030	9660

Marginal revenue for incremental million ton	53 crores
Marginal cost for incremental million ton	13 crores
Marginal net revenue for incremental million ton	40 crores

[Source: Sudhir Kumar, 2005]

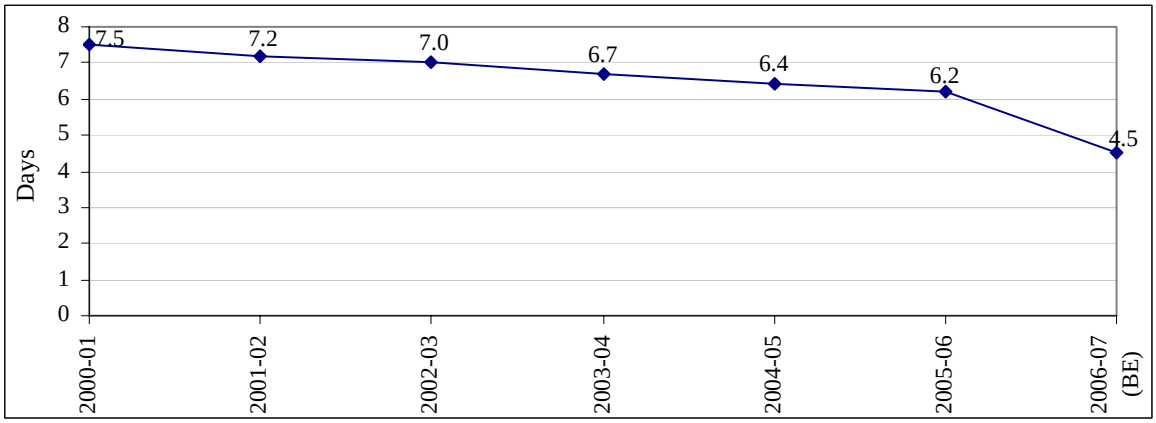
Exhibit 9: Freight Traffic Perspectives

Commodity-wise Freight Earnings



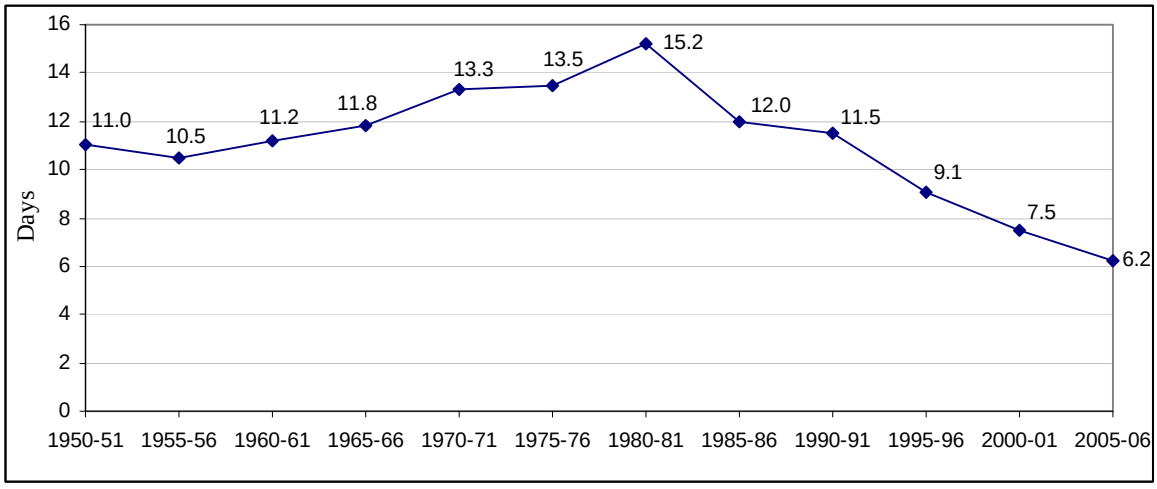
[Source: MOR, Various Years-a]

Wagon Turnaround (2000-01…)



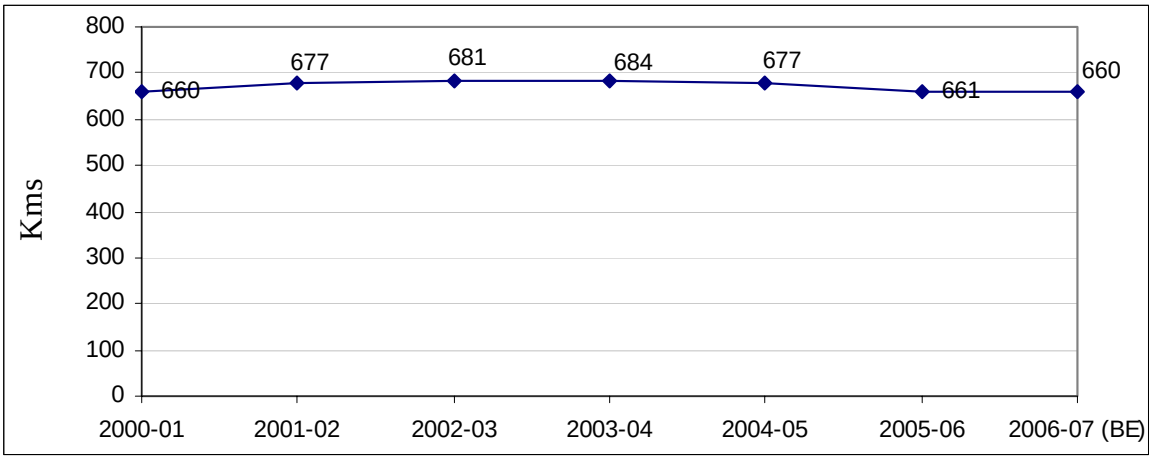
[Source: MOR, Various Years-a]

Wagon Turnaround (1950-51 to 2005-06)



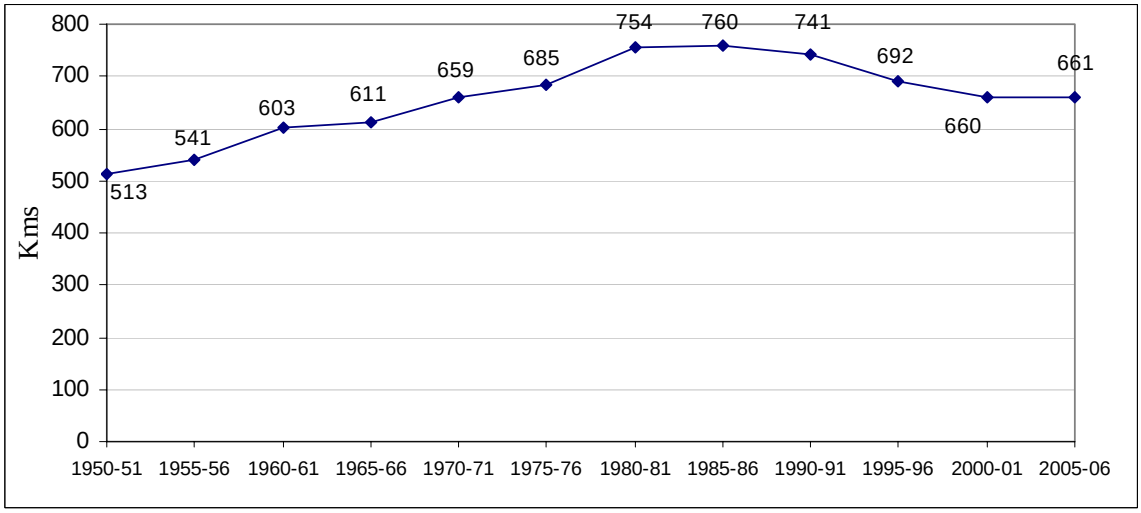
[Source: MOR, Various Years-a]

Average Lead (2000-01…)



[Source: MOR, Various Years-a]

Average Lead (1950-51 to 2005-06)



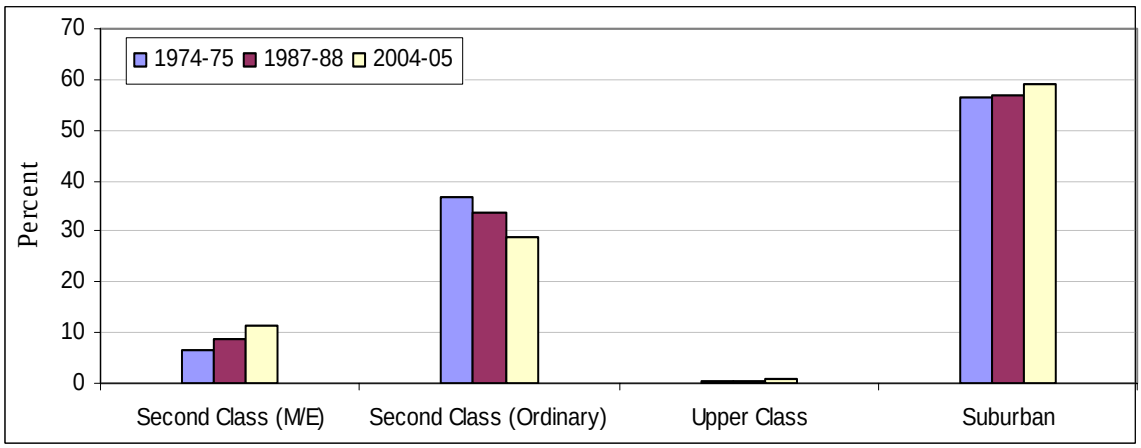
[Source: MOR, Various Years-a]

Exhibit 10: Passenger Traffic Perspectives

Passenger Earnings

[Source: MOR, Various Years-a]

Passengers Originating



[Source: MOR, Various Years-a]

Exhibit 11: Market Share Analysis

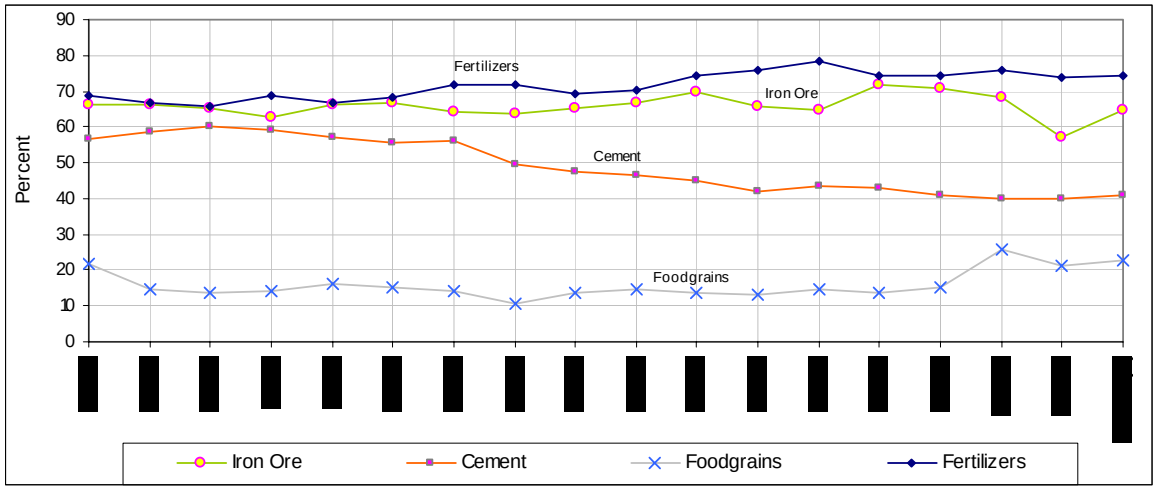
Percent Growth in Production and Railway Loading for Six Bulk Commodities

	Production Growth (1991-92 to 2003-04)	Railway Loading Growth (1991-92 to 2003-04)	Production Growth (2003-04 to 2005-06)	Railway Loading Growth* (2003-04 to 2005-06)	Production Growth (2004-05 to 2005-06)	Railway Loading Growth* (2004-05 to 2005-06)
Coal	3.61	4.25	5.6[1]	8.1		8.4
Food Grains	1.22	4.24		-3.3		-10.9
Fertilizers	3.78	3.62		17.1		13.0
Cement	7.86	4.37	11.7	11.4	9.3	13.7
POL	8.02	2.88	4.7[1]	2.9		5.6
Iron & Steel	8.28	1.09	6.0[2]	8.1	7.4	12.2

[Source: CRISIL, 2005; CMA, 2006; MOS, 2006; MOPNG, 2006; *MOR, Internal Correspondence;]

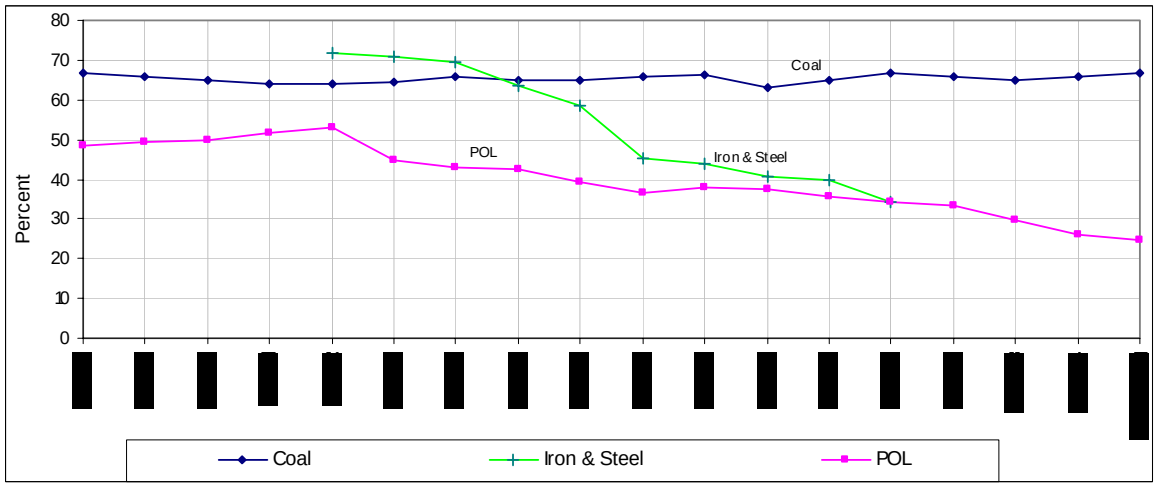
[1]2003-04 to 2004-05; [2]Includes Pig Iron

Market Share of Fertilizers, Iron Ore, Cement and Foodgrains by Rail to Total Production



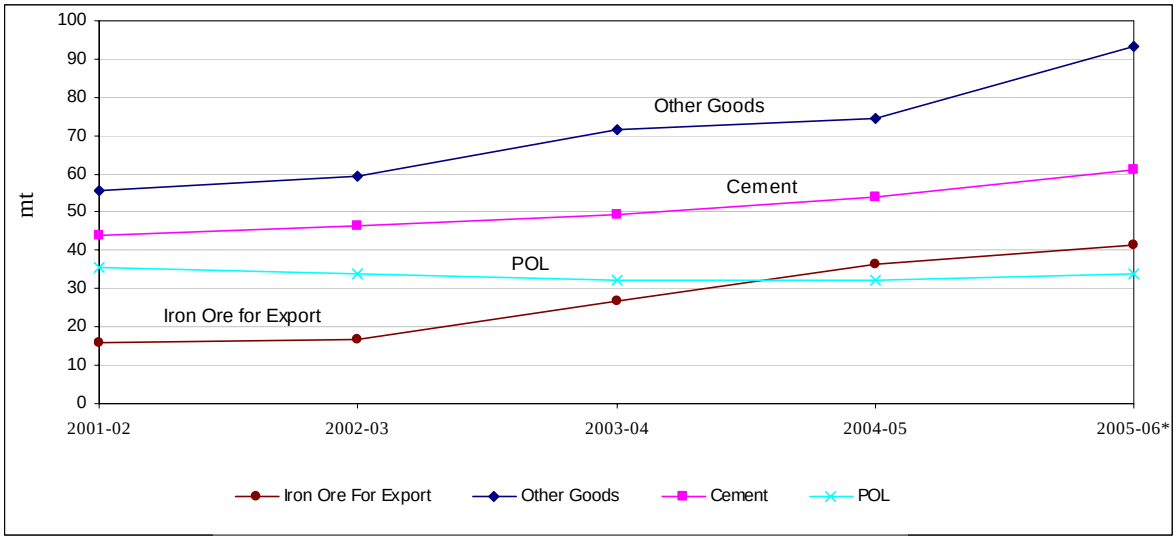
[Source: MOR, Various Years-a]

Market Share of Coal, Iron and Steel, and POL by Rail to Total Production



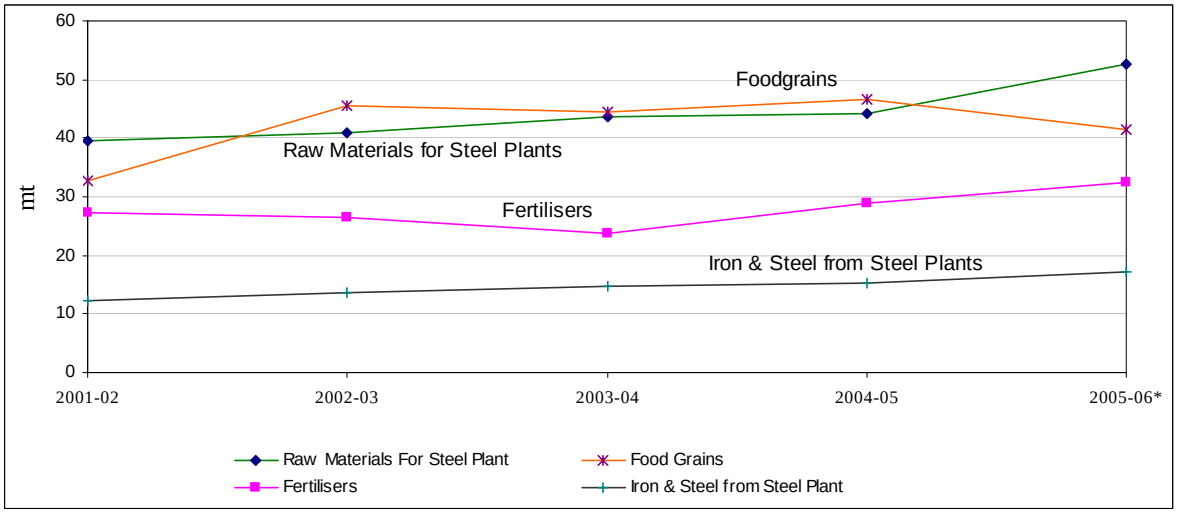
[Source: MOR, Various Years-a]

Loading of Cement, Iron Ore for Exports, Other Goods and POL



[Source: MOR, Various Years-a; *MOR, 2006, Internal Correspondence]

Loading of Fertilizers, Foodgrains, Iron & Steel from Steel Plants and Raw Material for Steel Plants



[Source: MOR, Various Years-a; *MOR, 2006, Internal Correspondence]

Exhibit 12: Customers' Perception on IR Initiatives

SAIL (Steel Authority of India Limited)

Excerpts from multiple letters dated 13th October 2005 to Member (Traffic), Railway Board:

:

Reduction in free time and increase in demurrage rates of wagons handled by steel plants

- The recent unilateral decision of the Railways to hike demurrage rates by 4 to 12 times & reduce free time by 25% to 75%, made effective from 20th Feb'05 & 1st Apr'05 respectively, has put huge financial burden on SAIL, which is estimated around Rs.150 crores during the current financial year.

Idle Freight

- Railways have increased the chargeable weight of wagons from CC+2 to CC+4 from Nov'04. It may be mentioned that imported coal, hard coke and Hot Rolled Coils cannot be physically loaded to CC+4.

Enhancement in Classification of Raw Materials used by Steel Plants

- The classification of movement of raw material such as coal, iron ore and fluxes was raised from class-120 to 140 during the year 2004-05 and further to 160 in May'05 for iron ore, having a financial impact of over Rs 200 crores in a year. The increase in the freight rate for iron ore has been in the order of 33.3% in span of Oct'04 to May'05, which has been changed three times.

CONCOR (Container Corporation of India Limited)

Company is unable to adopt a long term pricing strategy for its customers since both the timing and the rate of increase of haulage charges by Railways are unpredictable. The market for Rail Transport continues to be sensitive to pricing given the competition from the road sector [CONCOR, 2005].

NTPC (National Thermal Power Corporation Limited)

Concept of 'Engine-on-load' with just 3 hours free time for loading is too inadequate

CIL (Coal India Limited)

Railways was charging at a flat rate based on CC+6 tons where as the quantity of coal could not be accommodated in the wagon on account of volumetric constraints.

The unloading time has also been drastically reduced from 9 hrs to 5 hrs without taking into consideration the customers view.

[Source: 2006, Internal Correspondence and Authors discussion]

Exhibit 13: Excerpts from a Media Report

1: The 'superfast'

Several trains have been upgraded to 'superfast' status by Lalu Prasad. For every ticket you purchase for these trains you pay Rs 20 extra under the 'superfast' train charge. Several of these trains have only 20 minutes to one hour shaved off their old the running time.

So these trains may have minor delays and end up reaching their destination on the original arrival time anyway.

Among the trains that have been given superfast status in Mumbai are Kurla-Bhubaneshwar, Kurla Howrah Samratan Express, CST-Manmad Panchvati Express, Bandra-Surat, Surat Flying Ranee, Bandra-Bhavnagar and Mumbai Central-Bhuj. All these trains are heavily patronised by Mumbaikars.

2: Cancellation charge

About 27 per cent of all tickets sold are cancelled. So what Lalu Prasad did was simply double the charges on all tickets cancelled. While the older charges for cancellation were Rs 20 for second class and Rs 30 for AC class, the new charges are Rs 40 and Rs 60 respectively.

3: Cluster ticket

Earlier, if you wanted to travel from Mumbai to Guwahati, you could buy a reserved ticket on the Gitanjali Express that terminates at Howrah and a second ticket from Howrah to Guwahati all at a cost of Rs 557. This was called a cluster ticket.

Such cluster tickets have now been discontinued. For the same journey, you now have to buy a reserved ticket for Howrah at Rs 517 and then buy another ticket to travel between Howrah and Guwahati at Rs 369. The total charges now add up to Rs 886 - a full Rs 329 extra.

3: The return ticket hidden charge

Say you buy a second class ticket from Mumbai to New Delhi on the Paschim Express. You will pay Rs 421 for it. However, if you also book a return ticket (New Delhi-Mumbai) you will pay Rs 431 for this ticket - Rs 10 extra.

This is because an enhanced reservation fee has been introduced as Passenger Reservation System charges. Earlier, you paid the same amount for tickets booked from anywhere in India. Now if you buy a ticket at a Mumbai counter for a journey originating from New Delhi, you have to pay Rs 10 extra for second class tickets and Rs 15 extra for AC tickets. This is unfair to the vast majority that buys return tickets to avoid standing in a crowded queue a second time.

[Source: Mumbai Mirror, April 20, 2006]

Author's Comments:

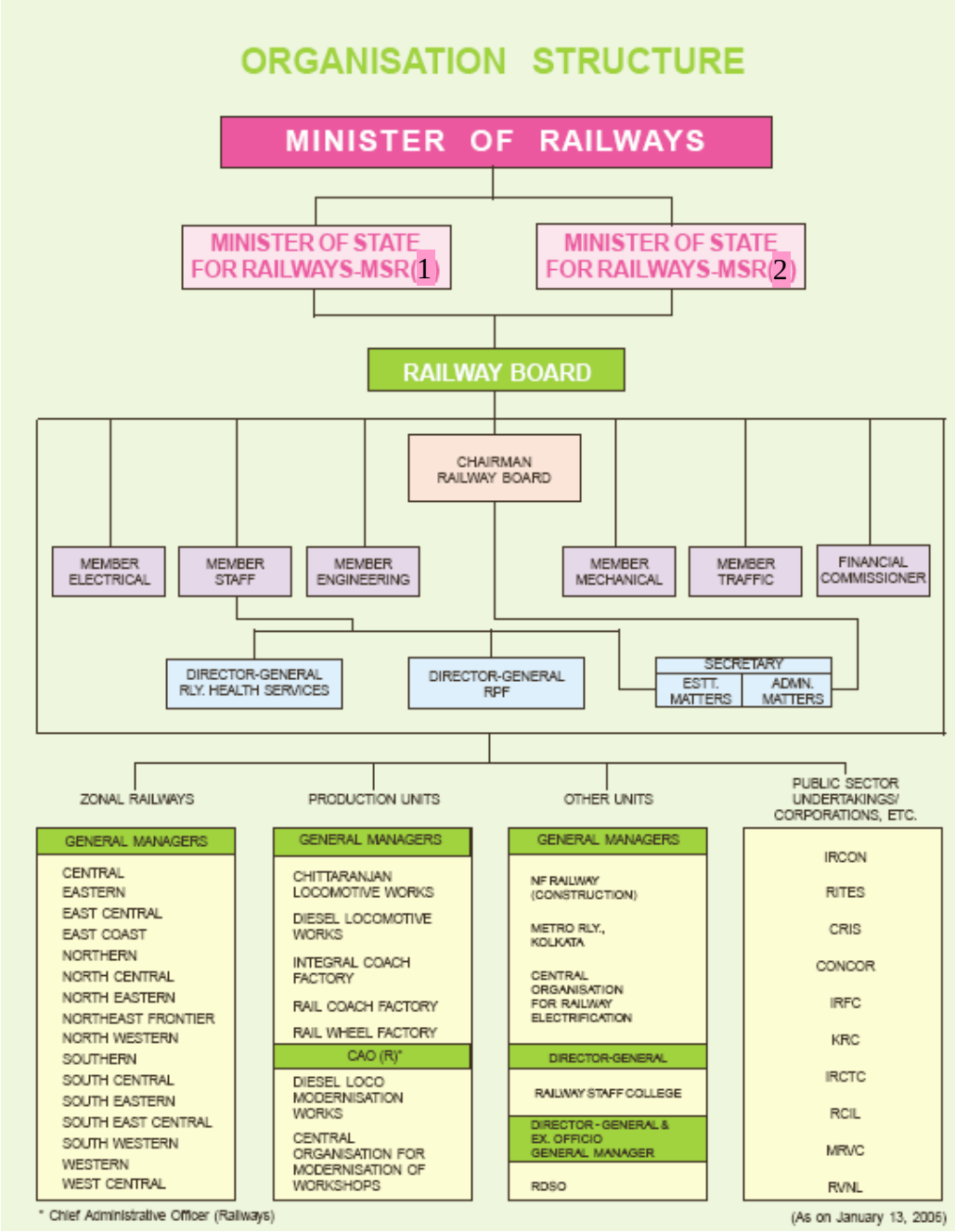
The 'return ticket hidden charge' is applicable to any ticket with an originating station different from where the booking is being made. The cluster ticket has since been withdrawn.

Exhibit 14: Sample of Superfast Trains having Common Route and Timings with Non-Superfast Trains

Train No	Train Name	Origin	Destination	Common Section
2511	Rapti Sagar Exp	Gorakhpur	Trivandrum	Nagpur- Trivandrum
6325	Ahilyanagari Exp.	Indore	Trivandrum	
6327	Korba Trivandrum	Korba	Trivandrum	
2512	Rapti Sagar Exp	Trivandrum	Gorakhpur	Trivandrum- Nagpur
6326	Ahilyanagari Exp	Trivandrum	Indore	
6328	Korba Trivandrum	Trivandrum	Korba	
2133	Pune Darbhanga Exp	Pune	Darbhanga	Bhusaval-Varanasi
1031	Pune Varanasi Exp	Pune	Varanasi	
8610	Lokmanya Tilak Ranchi Exp	Lokmanya Tilak (Mumbai)	Ranchi	
5268	Lokmanya Tilak Muzzaffarpur Jan Sadharan Exp	Lokmanya Tilak (Mumbai)	Muzzaffarpur	
2134	Darbhanga Pune Exp	Darbhanga	Pune	Varanasi-Bhusaval
1032	Varanasi Pune Exp	Varanasi	Pune	
5267	Muzzaffarpur Lokmanya Tilak Jan Sadharan Exp	Muzzaffarpur	Lokmanya Tilak (Mumbai)	
2148	Nizamuddin Chatrapati Sahu Exp	Nizamuddin	Chatrapati Sahu	Nizamuddin-Miraj
6218	Swarna Jayanti Exp	Nizamuddin	Mysore	
2147	Chatrapati Sahu Nizamuddin Exp	Chatrapati Sahu	Nizamuddin	Miraj- Nizamuddin
6217	Swarna Jayanti Exp	Mysore	Nizamuddin	
2587	Gorakhpur Jammu Tawi Amaranath Exp	Gorakhpur	Jammu Tawi	Gorakhpur- Jammu Tawi
5097	Barauni Jammu Tawi Exp	Barauni	Jammu Tawi	
2588	Jammu Tawi Gorakhpur Amaranath Exp	Jammu Tawi	Gorakhpur	Jammu Tawi- Gorakhpur
5098	Barauni Jammu Tawi Exp	Jammu Tawi	Barauni	
2144	Gaya Nagpur Deeksha Bhoomi Exp	Gaya	Nagpur	Mughal Sarai- Nagpur
6360	Patna Ernakulam Exp	Patna	Ernakulam	
7092	Patna Secunderabad Exp	Patna	Secunderabad	
2947	Ahmedabad Patna Azimabad Exp	Ahmedabad	Patna	Ahmedabad-Tondla
5635	Okha Guwahati Dwarka Exp	Okha	Guwahati	
2941	Ahmedabad Asansol Parasnath Exp	Ahmedabad	Asansol	Ahmedabad-Tondla
9569	Okha Varanasi Exp	Okha	Varanasi	
2648	Nizamuddin Coimbatore Kongu Exp	Nizamuddin	Coimbatore	Balharshah- Anantapur
6512	Bilaspur Yesvantpur Wainganga Exp	Bilaspur	Yesvantpur	
2647	Coimbatore Nizamuddin Kongu Exp	Coimbatore	Nizamuddin	Dharmabaram- Balharshah
6511	Yesvantpur Bilaspur Wainganga Exp	Yesvantpur	Bilaspur	

[Source: MOR, 2006-c]

Exhibit 15: Organization Structure of IR



[Source: MOR, 2006, Annual Report & Accounts]

Note: Reporting to the Members are Additional Members and then Executive Directors (each typically incharge of a Directorate).

Exhibit 16: Railway Ministers

	Railway Minister	Constituency (State)*	Party*	From	To	Duration (Months)	Prime Minister*	Ruling Party*
1	Ashraf Ali	Bihar	Congress	02/09/1946	14/08/1947	12		
2	John Mathai	Kerala	Congress	15/08/1947	22/09/1948	13	Jawaharlal Nehru	Congress
3	NGS Ayyanger		Congress	22/09/1948	13/05/1952	44	Jawaharlal Nehru	Congress
4	Lal Bahadur Shastri	UP	Congress	13/05/1952	07/12/1956	56	Jawaharlal Nehru	Congress
5	Jagjivan Ram	Sasaram (Bihar)	Congress	07/12/1956	10/04/1962	65	Jawaharlal Nehru	Congress
6	Swaran Singh	Jullundur (Punjab)	Congress	10/04/1962	21/09/1963	18	Jawaharlal Nehru	Congress
7	HC Dasappa	Bangalore (Mysore)	Congress	21/09/1963	08/06/1964	9	Jawaharlal Nehru	Congress
8	SK Patil	Bombay City-South (Maharashtra)	Congress	09/06/1964	12/03/1967	34	Lal Bahadur Shastri	Congress
9	CM Poonacha	Mangalore (Mysore)	Congress	13/03/1967	14/02/1969	23	Indira Gandhi	Congress
10	Ram Subhag Singh	Buxar (Bihar)	Congress	14/02/1969	04/11/1969	9	Indira Gandhi	Congress
11	P Govinda Menon	Mukundapuram (Kerala)	Congress	04/11/1969	18/02/1970	4	Indira Gandhi	Congress
12	GL Nanda	Kaithal (Haryana)	Congress	18/02/1970	17/03/1971	13	Indira Gandhi	Congress
13	K Hanumanthaiya	Bangalore City (Karnataka)	Congress	18/03/1971	22/07/1972	16	Indira Gandhi	Congress
14	TA Pai	Karnataka	Congress	23/07/1972	04/02/1973	7	Indira Gandhi	Congress
15	LN Mishra	Darbhanga (Bihar)	Congress	05/02/1973	02/01/1975	23	Indira Gandhi	Congress
16	Kamalapati Tripathi	UP	Congress	11/02/1975	23/03/1977	26	Indira Gandhi	Congress
17	Madhu Dandvate	Rajapur (Maharashtra)	Janata	26/03/1977	28/07/1979	28	Morarji Desai	Janata Party
18	TA Pai	Udipi (Karnataka)	Congress	30/07/1979	13/01/1980	6	Choudhary Charan Singh	Janata Party
19	Kamalapati Tripathi	Varanasi (UP)	Congress (I)	14/01/1980	12/11/1980	10	Indira Gandhi	Congress (I)
20	Kedar Panday	Bettiah (Bihar)	Congress (I)	12/11/1980	14/01/1982	14	Indira Gandhi	Congress (I)
21	PC Sethi	Indore (MP)	Congress (I)	15/01/1982	02/09/1982	8	Indira Gandhi	Congress (I)

	Railway Minister	Constituency (State)*	Party*	From	To	Duration (Months)	Prime Minister*	Ruling Party*
22	ABA Ghanikhan Choudhary	Malda (West Bengal)	Congress (I)	02/09/1982	31/12/1984	28	Indira Gandhi	Congress (I)
23	Bansi Lal	Haryana	Congress (I)	31/12/1984	25/09/1985	9	Rajiv Gandhi	Congress (I)
24	Bansi Lal (Transport Minister)	Bhiwani (Haryana)	Congress (I)	25/09/1985	04/06/1986	8	Rajiv Gandhi	Congress (I)
25	Mohsina Kidwai (Transport Minister)	Meerut (UP)	Congress (I)	24/06/1986	21/10/1986	4	Rajiv Gandhi	Congress (I)
26	Madhav Rao Scindia (MoS I/C)	Gwalior (MP)	Congress (I)	22/10/1986	01/12/1989	38	Rajiv Gandhi	Congress (I)
27	George Fernandes	Muzaffarpur (Bihar)	Janata Dal	05/12/1989	10/11/1990	11	VP Singh	National Front (India)
28	Janeshwar Mishra	Allahabad (UP)	Janata Dal	21/11/1990	21/06/1991	7	Chanda Shekhar	National Front (India)
29	CK Jaffer Sharief	Bangalore North (Karnataka)	Congress (I)	21/06/1991	16/10/1995	53	PV Narasimha Rao	Congress (I)
30	Ram Vilas Paswan	Hajipur (Bihar)	Janata Dal	01/06/1996	19/03/1998	22	HD Deve Gowda	United Front (India)
31	Nitish Kumar	Barh (Bihar)	Samata Party	19/03/1998	05/08/1999	17	Atal Behari Vajpayee	NDA
32	Ram Naik (MoS I/C)	Mumbai North (Maharashtra)	BJP	06/08/1999	12/10/1999	2	Atal Behari Vajpayee	NDA
33	Mamta Banerjee	Calcutta South (West Bengal)	AITC	13/10/1999	15/03/2001	17	Atal Behari Vajpayee	NDA
34	Nitish Kumar	Barh (Bihar)	Samata Party	20/03/2001	22/05/2004	39	Atal Behari Vajpayee	NDA
35	Lalu Prasad Yadav	Chapra (Bihar)	RJD	23/05/2004	till date		Manmohan Singh	UPA

[Source: MOR, 2006, Internal Correspondence; *http://parliamentofindia.nic.in]

Exhibit 17: Letter from MR to GMs Dated 1st April, 2005

Ministry of Railways
Government of India

No 2004/II(IV)/65/134 1 – 4 – 2005

My dear (All GMs),

As a result of the concerted efforts put in by all the Zonal Railways, IR is poised to achieve a land mark loading of 600 MTs in the financial year 2004-05 and regain some of the market share conceded to the road sector over the years. I would like to place on record my deep appreciation for the efforts made by you and your team of officers and staff for achieving this outstanding performance.

2. The task in the next financial year 2005-06 would be even more daunting and challenging as we have to gear up for ***Mission 700 MT freight loading***. An action plan has been drawn for realizing this mission, a copy of which is enclosed. The GMs, PHODs and DRMs must execute this plan in **MISSION MODE** and earmark a senior officer of their respective offices to ensure strict compliance of all the points listed in the action plan on **FAST TRACK** basis.

3. Everyday over 325 rakes take more than 24 hours in loading/unloading and 170 rakes take more than 15 hours in train examination. The time taken in arrival to release is also abnormally high. I am constrained to note that GMs of some of the important freight loading railways having high terminal detentions and very poor freight rolling stock productivity parameters have not ***even once highlighted*** the steps taken by them to reduce terminal detentions and to improve these indicators during the last 6 to 8 months. **THIS MUST CHANGE** and all the GMs must highlight the steps taken by them to execute the aforesaid action plan and to improve productivity of assets in the main body of the MCDO. All the GMs **MUST INITIATE** measures as considered necessary for bringing down the time taken by every single rake in loading/unloading and train examination to less than 20 hours and 10 hours respectively. They should immediately send proposals for upgradation of terminals, asset maintenance, train examination and other traffic facility works for reducing terminal detention and enhancing throughput and I assure you that funds will not be a constraint for the timely execution of these critical works. All the on-going throughput enhancement including traffic facility works should also be targeted for completion on ***top priority*** basis.

4. It is learnt that some of the earnings contracts are not finalized for months together while some of those relating to catering, advertisement, bookstalls etc. are being renewed at ridiculously low license fees. As a result, we are incurring huge losses on catering (Rs 441 crores), parcel and other coaching services (Rs 782 crores). These losses need to be reduced by at least 50% in the course of this year by ensuring that all pending earnings contracts/licensees including those relating to catering and parcel services are finalized at realistic licensee fees without any further delay and in future if finalization of these contracts is delayed by more than 3 months, responsibilities should be fixed for the same. Steps should also be taken for increasing occupancy of trains by at least 2-3% by adding more coachs to popular trains, improving the time table of unpopular trains, rationalizing reservation quotas and checking ticket-less traveling.

With these efforts, I hope that we would not only maintain the trend of regaining market share in freight loading but also improve operating ratio to less than 88% by achieving higher productivity of assets and manpower in the next financial year. I would once again request that al the aforesaid points should regularly be highlighted in the MCDOs.
Encl: As above

Yours Sincerely,

(Lalu Prasad)

Shri
General Manager,
(All Indian Railways)

[Source: MOR, 2006, Internal Correspondence]

Exhibit 18: Letter from MR to GMs Dated 27th March, 2006

Ministry of Railways
Government of India

DO No MR/M/21/2006 27th March, 2006

My dear (All GMs),

Let me, first of all, congratulate you and your team of officers and staff for record breaking performance with internal generation of Rs 13,000 crore and operating ratio of 83% during the year 2005-06. However, this should not make us complacent and we should try for freight loading of 800 mt, internal generation of Rs 20,000 crore and operating ratio of 77% in the year 2006-07.

With this rate of growth, we would be able to carry 1200 mt of freight traffic and 8000 million passengers by 2012. We must, therefore, **start thinking big** and leverage annual plan size. All zonal railways, particularly SC, SE, SW and Eco in which over 30,000 iron ore indents are pending, supplementary/main budget for capacity augmentation and de-bottlenecking of junctions, yards and terminal operations (see Annex-I). GMs should not hesitate in sending such proposals irrespective of the amount involved. There is an urgent need to take away small works from CAO(C) and strengthen them further for completion of all on-going throughput enhancement works within the given deadlines. GMs should personally monitor this on a regular basis.

It is a matter of concern that still 25% rakes take more than 24 hours and over 50% rakes take more than 15 hours in loading and unloading. All zonal railways should identify such terminals/sidings and take immediate necessary steps for reducing terminal detentions below the national average of 16 hours at such stations. We should try to further improve productivity of rolling stock by improving loco outage beyond 10% and bringing down turn round time of wagons to 4.5 days (see Annex-II). Implementation of terminal incentive cum engine on load schemes on sidings handling one or two rakes per day should also be pursued vigorously.

Despite our resolve to celebrate 2006 as the year of ***'Serving the passengers with a smile',*** passengers have so far not felt perceptible improvement in *'touch and feel items'*. DRMs should be asked to play a lead role in percolating this spirit down to the lowest level. Every DRM should select at least 5 stations and transform them into modern stations within a period of next 12 months. They should leverage public private partnerships for upgradation of stations, toilets, waiting rooms etc. They are also being empowered for sanctioning passenger amenities works upto Rs 30 lakhs and sufficient funds would be made available at their disposal for such works.

We have recorded around 50% growth in sundry and other coaching earnings in the year 2005-06 and we should try to surpass this growth rate during the next year. This would require (a) timely finalization of earning contracts, and (b) upward revision of license fees by 5-10 times in line with the true potential of land leasing and commercial earning contracts. As requested vide my earlier DO, I would again request you to bring down passenger losses by 50% and wipe out catering and parcel losses completely by the end of 2006-07.

I would like to be apprised on the steps taken by you on the aforesaid points through your MCDOs.

With best wishes,

Yours Sincerely,

(Lalu Prasad)

General Managers,
Indian Railways

[Source: MOR, 2006, Internal Correspondence]

Exhibit 19: Sample Advertisements

[Source: Leading national daily newspapers]

Exhibit 20: Sizing up the Railways Ministers

Philosophically speaking, the real driver of rail reforms is not Lalu, though he must get credit for executing them. The real driver is competition – from roads in freight and from airlines and cars in the passenger business. The market share of the railways in carrying freight fell from 89 per cent to 40 per cent between 1951 and 1996, and is expected to fall to 28 per cent by 2011. Its share of passenger traffic will fall from 68 per cent to 6 per cent in the same period.

Financially, the Railways was moving towards a debt trap. Between 1996 and 2001, its net revenue receipts (NRR) crashed from Rs 4135 crore to Rs 1,071crore, a fall of 24 per cent per annum. In what can be described as its worst years, this period saw three ministers: Ram Vilas Paswan (1996-98), Nitish Kumar (1998-99), Mamata Banerjee (2000). If the railways was a listed firm, these worthies would be on the next train out.

The worst falls came when Nitish and Mamata were ministers. While Nitish oversaw a fall of 29 per cent, Mamata managed to lower it by another 28 per cent. The very next year, Nitish, in his second term (2001-04) was able to stem the fall and lowered it by just 6 per cent. Riding that success, Nitish, doubled the NRR of Rs 4,479 Crore.

That's where Lalu took charge. In two years, he has tripled this to Rs 14293 crore – the highest ever rise. To put this number in perspective, it is India's second highest profit maker, after ONGC's Rs 15,143 crore. The operating ratio has returned to below 90%. The question is: Can Lalu better his own record?

[Source: Indian Express, April 2006]

Exhibit 21: Chairmen, Railway Board

S No	Name	Cadre	From	To	Duration (months)
1	FC Badhwar	IRSE	01.04.1951	30.09.1954	42
2	G Pande	IRSE	01.10.1954	31.12.1956	26
3	PC Mukherjee	IRSE	01.01.1957	25.06.1959	30
4	KB Mathur	IRTS	30.06.1959	18.04.1960	10
5	Karnail Singh	IRSE	18.04.1960	16.08.1962	27
6	DC Baijal	IRSE	16.08.1962	07.08.1965	35
7	Kripal Singh	IRSE	07.08.1965	21.01.1967	17
8	GD Khandelwal	IRTS	21.01.1967	06.01.1970	36
9	BC Ganguli	IRSE	07.01.1970	12.10.1971	21
10	BSD Baliga	IRSE	13.10.1971	12.10.1973	24
11	MN Bery	IRSE	12.10.1973	30.04.1976	31
12	GP Warrier	IRSE	01.05.1975	31.08.1977	16
13	KS Rajan	IRSME	01.09.1977	03.06.1979	21
14	M Menezes	IRSE	04.06.1979	16.11.1980	16
15	MS Gujral	IRTS	17.11.1980	06.02.1983	27
16	KTV Raghvan	IRSME	05.04.1983	31.01.1985	23
17	JP Gupta	IRSME	01.02.1985	30.06.1985	5
18	Prakash Narain	IRTS	01.07.1985	31.06.1987	24
19	RK Jain	IRSE	01.07.1987	31.07.1989	25
20	MN Prasad	IRSE	01.08.1989	31.07.1990	12
21	RD Kitson	IRSME	01.08.1990	31.03.1992	20
22	YP Anand	IRSE	01.04.1992	31.12.1992	9
23	AN Shukla	IRSME	01.01.1993	31.03.1994	15
24	MK Rao	IRSME	31.03.1994	30.06.1994	3
25	Ashok Bhatnagar	IRTS	01.07.1994	31.05.1995	11
26	GK Khare	IRSME	01.06.1995	30.06.1996	13
27	CL Kaw	IRTS	01.07.1996	30.04.1997	10
28	M Ravindra	IRSE	30.04.1997	31.12.1997	9
29	VK Agrawal	IRSE	31.12.1997	31.08.2000	32
30	Ashok Kumar	IRSME	01.09.2000	31.08.2001	12
31	RN Malhotra	IRSE	31.08.2001	31.03.2002	7
32	IIMS Rana	IRSE	01.04.2002	30.06.2003	15
33	RK Singh	IRSE	30.06.2003	31.07.2005	24
34	JP Batra	IRTS	01.08.2005		

IRSE (Civil Engineering) = 19; IRTS (Traffic) = 7; IRSME (Mechanical) = 8

Chief Commissioner of Railways

S No	Name	From	To	Duration (months)
1	Sir Clement Hindley	01.11.1922	11.10.1928	63
2	Sir Austin Hadow	12.10.1928	15.10.1929	12
3	Sir Guthrie Russell	16.10.1929	16.07.1940	128
4	Sir Leonard Wildson	17.07.1940	17.08.1944	49
5	Sir Arthur Griffin	12.09.1944	19.05.1946	20
6	Col RB Emerson	20.05.1946	10.09.1947	16
7	Shri KC Bakhle	11.09.1947	31.03.1951	42

[Source: MOR, 2006, Internal Correspondence]

Exhibit 22: Market Segmentation for Freight

Origin Destination-wise Freight Traffic (2004-05) mt

D / O	**Industry** **Total** **(337.27)**	**Port** **Total** **(70.71)**	**Distribution Centre** **Total** **(194.13)**
Industry/Collection Centre		- POL (4.1) - Other commodities: Containers (12.33)	- Cement (53.77) - POL (19.95) - Foodgrains (46.23) - Fertilisers (24.87) Iron and steel (17.38) - Salt (4.17) - Sugar (2.10) - Other commodities (1.14)
Total (186.04)		**Total (16.45)**	**Total (169.60)**
Mine	- Coal (224.87) - Iron ore/other ores (57.91) - Limestone/dolomite (9.97) - Stones, excluding marble (8.04) - Gypsum (2.20)	- Coal (16.19) - Iron ore/other ores(38.07)	
Total (357.23)	**Total (302.98)**	**Total (54.26)**	
Port	- Coal (29.34) - Iron ore/other ores (0.29) - Other commodities (4.66)		- POL (7.84) - Foodgrains (0.29) - Fertilisers (3.88) - Iron and steel (0.98) - Other commodities: Containers (11.53)
Total (58.83)	**Total (34.29)**		**Total (24.53)**

[Source: Raghuram and Gangwar, 2006]

Exhibit 23: Zonal and Divisional Organization on Indian Railways

Zone

- General Manager
- Additional General Manager
- Principal Heads of Departments
- Senior Deputy General Manager
- Heads of Departments
- Deputy Heads of Departments

Departments in a Zone

o Accounts (FA&CAO)	o Civil Engg (PCE)
o Commercial (CCM)	o Electrical Engg (CEE)
o Mechanical Engg (CME)	o Medical (CMD)
o Personnel (CPO)	o Operations (COM)
o Safety (CSO)	o Security (CSC)
o Signal & Telecom (CSTE)	o Stores (COS)

Division

- Divisional Railway Manager
- Additional Divisional Railway Manager
- Branch Officers of the Various Branches
- Senior Scale/Junior Scale Officers
- Supervisors and Staff

Branches in a Division

o Accounts (Sr DFM)	o Civil Engg (Sr DEN (Coordination)
o Commercial (Sr DCM)	o Electrical Engg Traction Distribtn Sr DEE (TRD)
o Electrical Engg Shed Sr DEE (TRS)	o Electrical Engg Train Operations Sr DEE (TRO)
o Mechanical Engg C&W (Sr DME)	o Mechanical Engg Loco (DME)
o Medical (CMS)	o Operations (Sr DOM)
o Personnel (Sr DPO)	o R P F (Sr DSC)
o Safety (Sr DSO)	o Signal & Telecom (Sr DSTE)
o Stores (DMM)	

[Source: RSC 2006, Internal Correspondence]

IR Zones

No	Name of the Zone	Abbr	Headquarters	Date Established	Divisions
1.	Southern Railway	SR	Chennai	14.04.1951	Chennai, Madurai, Palghat, Tiruchchirapalli, Trivandrum
2.	Central Railway	CR	Mumbai	05.11.1951	Bhusawal, Mumbai, Nagpur, Pune, Solapur
3.	Western Railway	WR	Mumbai	05.11.1951	Ahmedabad, Baroda, Bhavnagar, Mumbai, Rajkot, Ratlam
4.	Eastern Railway	ER	Kolkata	14.04.1952	Asansol, Howrah, Malda, Sealdah
5.	North Eastern Railway	NER	Gorakhpur	14.04.1952	Izzatnagar, Lucknow , Varanasi
6.	Northern Railway	NR	Delhi	14.04.1952	Ambala, Delhi, Firozpur, Lucknow, Moradabad
7.	South Eastern Railway	SER	Kolkata	01.08.1955	Adra, Chakradharpur, Kharagpur, Ranchi
8.	Northeast Frontier Railway	NFR	Guwahati	15.01.1958	Alipurduar, Katihar, Lumding, Rangia, Tinsukia
9.	South Central Railway	SCR	Secunderabad	02.10.1966	Guntakal, Guntur, Hyderabad, Nanded, Secunderabad, Vijayawada
10.	East Central Railway	ECR	Hajipur	01.10.2002	Danapur, Dhanbad, Mughalsarai, Samastipur, Sonpur
11.	North Western Railway	NWR	Jaipur	01.10.2002	Ajmer, Bikaner, Jaipur, Jodhpur
12.	East Coast Railway	ECoR	Bhubaneswar	01.04.2003	Khurda Road, Sambalpur, Waltair
13.	North Central Railway	NCR	Allahabad	01.04.2003	Agra, Allahabad, Jhansi
14.	South Western Railway	SWR	Hubli	01.04.2003	Bangalore, Hubli, Mysore
15.	West Central Railway	WCR	Jabalpur	01.04.2003	Bhopal, Jabalpur, Kota
16.	South East Central Railway	SECR	Bilaspur	05.04.2003	Bilaspur , Nagpur, Raipur

[Source: Wikipedia, 2006]

Note: Konkan Railway (KR) is constituted as a separately incorporated railway, with its headquarters at Belapur CBD (Navi Mumbai), although it still comes under the control of the Railway Ministry and the Railway Board.
The Calcutta Metro is owned and operated by Indian Railways, but is not a part of any of the zones. It is administratively considered to have the status of a zonal railway.

Exhibit 24: Key Recommendations of The Indian Railways Report - 2001

1. If IR is to survive as an ongoing transportation, organization it has to modernize and expand its capacity to serve the emerging needs of a growing economy. This will require substantial investment on a regular basis for the foreseeable future.

2. IR will have to compete even harder with other modes in order to sustain its traffic volumes, let alone accelerate growth. Thus a significant change is needed in IR's strategy towards its freight services.

3. IR should take steps to recover its market share through a combination of tariff re-balancing and quality enhancement measures, and to increase its share of the transportation of "other commodities".

4. The Committee has constructed three possible investment strategies for IR over the next fifteen years. The first two scenarios, "Low Growth" and "Medium Growth" are constructed in a "Business as Usual" framework, whereas the third scenario, "Strategic High Growth" will require substantial focused remunerative investment and corresponding organizational restructuring of IR internally and in its relationship with government, including corporatisation.

5. For IR to survive over the next 20 years and beyond, it has to adopt a "strategic perspective" where it rekindles high growth in both the passenger and freight segments.

6. IR will have to explore every avenue of cost reduction. Among the cost reductions to be implemented staff cost reduction will be crucial.

7. From the point of view of investment strategy, the most undesirable feature of the annual budget exercise is the very short-term focus it imparts to all investment initiatives. The priority for IR is to invest in debottlenecking points of congestion in the network (particularly on the saturated arterial networks of the Golden Quadrilateral linking Delhi, Kolkata, Chennai and Mumbai).

8. The Expert Group's focus on root causes has highlighted three priority areas: institutional separation of roles; clear differentiation between social obligations and performance imperatives; and the need to create a leadership team committed to and capable of redefining the status quo.

9. The current system has two flaws that the Expert Group believes must be corrected: tenure and skills. A system which effectively rewards those on the basis of seniority and age with a position on the Board for a few months prior to retirement is not the mechanism to breed leaders. Skills in the leadership team need to be broadened and deepened. IR urgently requires an injection of fresh ideas and fresh skills to accelerate its development into a commercially savvy market oriented set of businesses.

10. The Expert Group has carefully examined the experience of European and other railways in their restructuring efforts. The focus should be on commercialization rather than privatization. This involves reorganizing the rail system into its component parts, spinning off non-core activities, restructuring what remains along business lines and adopting commercial accounting performance management systems. IR's management needs to be allowed a degree of autonomy that is comparable to any other commercial organization.

11. IR must eventually be corporatised into the Indian Railways Corporation (IRC). The Government of India should be in charge of setting policy direction. It would also need to set up an Indian Rail Regulatory Authority (IRRA), which would be necessary to regulate IRC's activities as a monopoly supplier of rail services, particularly related to tariff setting. The Indian Railways Corporation (IRC) would be governed by a reconstituted Indian Railways Executive Board (IREB).

[NCAER, 2001]

Exhibit 25: Excerpts from Tandon Committee Report - 1994

Restructuring the Organisation

Railway Board

Functions to be represented in the Board should cover the major external and internal transactions of the organization. The external transactions are with the customers in passenger and freight. The internal transactions are those between the freight, passengers and inter-modal services divisions and the division responsible for production and maintenance of rolling stock and infrastructure, and their maintenance. These divisions are to be supported by services such as finance, personnel, corporate planning, operation research, economics, legal security, medical, purchases, stores and training. A major area of future source of funds for the development of the network will be property development. The distribution of these functions under a compact Board may be as follows:

Bulk Freight Services	which will deal with the existing bulk movements like coal, ore, cement etc.
Passenger Services	which deal with long distance, commuter, intercity and suburban
Inter-modal Services	this is the major thrust area and will deal with containerized and wagon loads as a total door to door services. This is expected to bring back highly paying of "smalls" traffic to Railways and will require major initiatives
Infrastructure	to look after track, OHE and signalling systems
Moving Assets	to look after locomotives, coaches, wagons and their production and maintenance
Finance and Planning	to look after Banking, Fund raising, Financial Services and Long Range Planning
HRD, Research and Quality	

Human Resource Management

Direct recruitment to Indian Railways at the officers level is made through the UPSC into ten departmentally based services. These are:

Through Combined Engineering Services

1. Indian Railways Service of Mechanical Engineers
2. Indian Railways Service of Engineers
3. Indian Railways Service of Electrical Engineers
4. Indian Railways Service of Signal Engineers
5. Indian Railways Store Services

Through the Civil Services Examination

1. Indian Railways Traffic Service
2. Indian Railways Account Service
3. Indian Railways Personnel Service
4. Indian Railways Protection Force

Through Combined Medical Services

1. Indian Railways medical Service

As a first step it would be worthwhile to examine the possibility of Indian Railways recruitment under a single service.

Indian Railway Administrative Service

….After recruitment and appropriate training they could then be allotted to the different departments according to each on needs and not according to technical disciplines. Initially the infrastructure, rolling stock and workshop and operations department will source their requirements from the pool of technical graduates and the Finance, Commercial and Personnel would draw from those with appropriate qualifications….

The Next Step

Recommendations

1. Tenures of general managers, members and Chairman of the Board should be for a minimum of 3 years. The general managers and members may be made equal in salary so that they do not have to move simply for the sake of increased salaries. Similar tenures are suggested for additional general managers in the new structure.

2. The average age of divisional railway manager is generally above fifty which results in short tenures at more senior positions. To remedy this and to assure minimum tenures at senior levels, posting at divisional railway managers should be at younger age level.

3. Creation of an unified Indian Railways Service with a development and selection process to groom those who only will man general management positions such as Divisional Railway Manager, Additional General Manager, General Manager and Member.

4. The changes suggested for the functions of the Board members from the present departmental to those proposed should be implemented first to send out the message of change.

[Source: MOR, 1994]

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Glossary

Designations

AM(C)	Additional Member (Commercial)
AM(CE)	Additional Member (Civil Engineering)
AM(T)	Additional Member (Traffic)
AM(P)	Additional Member (Planning)
CCRS	Chief Commissioner of Railway Safety
CRB	Chairman Railway Board
CRS	Commissioner of Railway Safety
DG	Director General
EDCE (B&S)	Executive Director, Civil Engineering (Bridges and Structures)
EDCE(P)	Executive Director, Civil Engineering (Planning)
EDME(FR)	Executive Director, Mechanical (Freight)
EDTC(R)	Executive Director, Traffic Commercial (Rates)
EDTT(M)	Executive Director, Traffic Transportation (Movement)
EDTT(S)	Executive Director, Traffic Transportation (Steel)
FC	Financial Commissioner
JDTC(R)	Joint Director Traffic Commercial (Rates)
ME	Member Engineering
ML	Member Electrical
MM	Member Mechanical
MR	Minister of Railways
MS	Member Staff
MT	Member Traffic
OSD	Officer on Special Duty

Organizations

CIL	Coal India Ltd
CMA	Cement Manufacturers Association
CR	Central Railway
ER	Eastern Railway
IRCTC	Indian Railway Catering and Tourism Corporation
IRITM	Indian Railways Institute of Transport Management
NR	Northern Railway
NTPC	National Thermal Power Corporation
RB	Railway Board
RDSO	Research Designs and Standards Organization
SAIL	Steel Authority of India Ltd
SECR	South East Central Railway
SER	South Eastern Railway
SR	Southern Railway
SWR	South Western Railway

Others

BG	Broad Gauge
BPC	Brake Power Certificate
UTS	Ultimate Tensile Stress

Visits and Discussions by the Study Team

May 04, 2006, Thursday, New Delhi

- Mr Sudhir Kumar, OSD to MR
- Mr Lalu Prasad and Board Members
- Mr RK Singh, Ex CRB
- Mr PK Goel, MD, IRCTC
- Mr RR Bhandari, ME
- Mr Ghoshdastidar, MT

May 05, 2006, Friday, New Delhi

- Mr Ramesh Chandra, ML
- Mr SM Singla, Ex MS
- Mr PN Garg, Ex MM (DG, RSC)
- GM's Conference
- Mr SC Gupta, Ex ML

June 14, 2006, Wednesday, New Delhi

- Mr SPS Jain, Ex ME
- SAIL
  - Mr VS Jain, Chairman
  - Mr KK Khanna, Director (Technical)
  - Mr SC Nayak, Executive Director (Operations)
  - Mr JC Naithani, Dy GM (Operations)
- NTPC
  - Mr T Sankaralingam, Chairman and MD
  - Mr RL Mattoo, GM (Fuel Management)
- CONCOR
  - Mr Rakesh Mehrotra, MD

June 15, 2006, Thursday, Lucknow

- Mr SK Sinha and other Officers, RDSO
- Mr GP Garg, CCRS
- Mr Asit Chaturvedi, Director, IRITM

June 16, 2006, Friday, New Delhi

- Mr LR Thapar, Ex (MT)
- Mr EN Murthy, CMA
- Mr RN Aga, Ex MT
- Mr Sumant Chak, Ex AM (Plng)
- Mr SB Roy, Group GM/PRS, CRIS

June 21, 2006, Wednesday, New Delhi

- Mr VN Mathur, GM, NR
- Mr Sudhir Kumar, OSD to MR
- Mr Kamlesh Gupta, CCM,NR
- Mr RR Jaruhar, ME
- Mr Sivadasan, FC
- Mr JP Batra, CRB

June 22, 2006, Thursday, Kolkata

- Mr VK Raina, GM, SER

- Mr SS Khurana, GM, ER
- Officers of ER and SER

June 23, 2006, Friday

- Visit to Dangoaposi , Noamundi, and Tatanagar with
  - Senior DCM, Chakradharpur
  - Deputy COM, Planning (SER)
  - Consultant Railway Officer to Tata Steel

June 24, 2006, Saturday

- Mr Ramakrishna, Ex MD, CRIS
- Mr AK.Moitra, DRM Howrah and
  Mr JN.Lal, Suburban Railway Manager, Howrah.
- Mr K Ranganath, Director (Marketing), CIL
- Mr IK Singh, Chief GM (S&M), CIL

July 09, 2006, Sunday

- Visit to Bellary:Hospet
  - A Srinivas Rao, Dept COM, SWR

July 09, 2006, Sunday

- Visit to Toranagallu
  - Mr Ulhas G Pawar, VP (Logistics), JSW Steel Ltd
  - Mr Raman Kannan, Dept GM (logistics), JSW Steel Ltd

July 09, 2006, Sunday

- Visit to Bannihatti, Ranajitpura (NMDC), Yashwantnagar, T B Dam Weigh Bridge, Kariganuru (MSPL Ltd)

July 10, 2006, Monday, Hubli

- Mr GG Phulpagar, CCM, SWR
- Mr Deepak Chabra, CCM (Passenger Business), SWR
- Divisional Railway Manager
- Visit to Diesel Loco Shed with
  - Mr Umashankar, Sr Divisional Mechanical Engineer

July 11, 2006, Tuesday, Chennai

- Discussion with Mr M Ravindra, Ex Chairman, RB

July 14, 2006, Friday, Chennai

- Mr Abraham Jacob, COM, SR
- Mr MS Jayanth, CCM, SR

Acknowledgements

Customers

1. CIL: Mr K Ranganath, ED (Marketing), and Team CIL
2. CMA: Mr EN Murthy, Secretary General
3. CONCOR: Mr Rakesh Mehrotra, MD
4. JSW Steel Ltd: Team JSW Steel Ltd
5. NTPC: Mr T Sankaralingam, Chairman and MD, and Team NTPC
6. SAIL: Mr VS Jain, Chairman, and Team SAIL

Railway Board

1. Mr JP Batra, CRB
2. Mr RR Bhandari, ME
3. Mr Ramesh Chandra, ML
4. Mr SB Ghoshdastidar, MT
5. Mr RR Jaruhar, ME
6. Mr Sudhir Kumar, OSD to MR
7. Mr Lalu Prasad, MR

Ex Railway Officers

1. Mr RN Aga, Ex MT
2. Mr Sumant Chak, Ex AM (Plng)
3. Mr PN Garg, Ex MM
4. Mr SC Gupta, Ex ML
5. Mr SPS Jain, Ex ME
6. Mr M Ravindra, Ex CRB
7. Mr RK Singh, Ex CRB
8. Mr SM Singla, Ex MS
9. Mr LR.Thapar, Ex AM (T)

Indian Railways Units

1. Commission of Railway Safety: Mr GP Garg, CCRS
2. CRIS: Mr Jhingren, MD; Mr Ramakrishna, Ex MD; MR SB Roy, Group GM/PRS
3. ER: Mr SS Khurana, GM, and Team ER
4. IRCTC: Mr PK Goel, MD
5. IRITM: Mr Asit Chaturvedi, Director
6. NR: Mr VN Mathur, GM
7. RDSO: Team RDSO
8. SER: Mr VK Raina, GM, and Team SER
9. SR: Team SWR
10. SWR: Team SWR

Indian Institute of Management, Ahmedabad

1. Mr Ameesh Dave
2. Ms Rachna Gangwar
3. Ms Phoram Patel
4. Ms Niraja Shukla

Railway Staff College, Vadodara

1. Mr K L Dixit, SPTM
2. Ms Shobhna Jain, DG
3. Mr Sanjeevan Kapshe, PMS
4. Mr Dwarika Prasad, SPME
5. Dr R C Rai, SPFM