Financing of Railway Projects

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Agenda

1. Background
2. Ways of Financing Rly Projects
3. Estimation and Evaluation
4. Cash Flows from Railway Projects
6. Summary and Suggestions
Indian Railways (IR) is a Departmental Commercial Undertaking of Government of India (GoI).

From 1924, it has a separate Budget, but summary figures of its receipts and expenditure are ultimately subsumed in the General Budget of Union of India, prepared by Ministry of Finance.

Investments made/ to be made by Government of India (GoI) in infrastructure of Railways are treated as Loan (called Capital at charge).
Indian IR has to pay Dividend (actually interest) on such loan. Rate varied between 4 to 7% pa in last decade, current rate is 5% pa. This loan is typically for additional infrastructure / Projects IRR of 14%. +

Loan in 1950-51 was INR 8.57 Billion, which has risen to INR 2088 Billion by 2013-14 while, Dividend payment has risen to close to INR 80 Billion annually.
Ways of Financing Railway Projects

1. Create Finance Company
   Indian Railways Finance Corporation (IRFC)

2. Public Participation - Konkan Railway

3. Public Private Participation - Kutch Railway
Ways of Financing Railway Projects

1. Create Finance Company - IRFC- Indian Railways Finance Corporation
2. Public Public Participation - Konkan Railway
3. Public Private Partnership - Kutch Railway
IRFC (Indian Railways Finance Corporation) - As per rules of allocation of business in GoI, no ministry, except the Ministry of Finance can borrow from outside. Around 1986, IR wanted to grow fast and needed investments. GoI could not have lent more as they had other pressing requirements. IR created IRFC which would borrow from the market by placing long term bonds, use the money for purchasing Rolling Stock, lease them out to IR.
Now over 70% of Rolling Stock on the system belongs to IRFC. While IRFC is doing well financially, payment of lease charges as well as repayment of principal portion by IR to IRFC entail huge outgo for IR. The provision of additional Rolling Stock on lease is only slightly more than the cash outgo from IR in recent years, as can be seen from next slide.
## Market Borrowings & Payments

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<th>Out</th>
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<td>2014-15</td>
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<td>2015-16</td>
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### Graph Description

- **Market Borrowings** represented by blue dots.
- **Payments** represented by red dots.

The graph shows the trend of market borrowings and payments from 2007-08 to 2015-16, with a clear upward trend in both categories.
Konkan Railway

Conceived in mid 1980s as a Public-Public-Partnership among IR and 4 States, for construction of 761 km of new line in the west coast. Completed in extremely trying conditions, requiring much higher investment, requiring huge loans during construction.

Thereafter, projected revenues did not materialize making it difficult to service the loans. Loans were later paid off by IR and converted to Preference Capital. In 2013-14 it has made marginal profit, but accumulated losses are very heavy.
## Konkan Railway – Project Financials

**Estimated Cost (1989)** - 8.67

**Completion Cost (1998)** - 35.55

**Works Cost** - 25.20

**Financing Cost** - 10.35

**Means of Finance**

- **Equity Capital** - 8.00
- **Railways** - 51%
- **States** - 49%
- **Bonds** - 27.55

**AMOUNTS IN INR BILLION**

Underestimation of cost led to heavy borrowings and consequently resulted in additional interest expenditure.
Konkan Railway

**Time and Cost overrun**
- Difficult terrain
- Agitations
- Change in alignment
- Inflation

**Suboptimal Financial performance**
- High project cost
- Costly market borrowings
- Non materialization of freight traffic
In 2004, RVNL set up its first JV to convert 301 km MG line from Palanpur to Gandhidham in the state of Gujarat and Kutch Railway Co was created for this purpose.
Kutch Railway Project Location
LEGAL AND CONTRACTUAL FRAMEWORK

- Rail Vikas Nigam Limited (50% Equity)
- Government of Gujarat (4% Equity)
- Kandla Port Trust (26% Equity)
- Gujarat Adani Port Limited (20% Equity)

- Debt Financing by OBC & United Bank
- Concession Agreement with Ministry of Railways
- Construction by Western Railway
- Ops & Maintenance by Western Railway
- Revenue from Freight Users
- Insurance of Project Assets
Concession agreement with MoR providing

- Exclusive right to KRC for executing all activities relating to development, financing, design, construction, operation and maintenance of 301 km Project Railway for 32 years.
- Right to receive its apportioned earnings from freight
- Right to commercially exploit leased project assets
- KRC to bearing all cost on O&M during the period.
- KRC engaged Western Rly for construction and O&M
PPP- Kutch Railway- Benefits to IR

- KRC has speeded up the pace of the project
- INR 5 Billion cost of Construction, IR paid INR 1 Billion
- IR recovered INR 0.8 Billion from released MG material.
- MG line was incurring huge losses
- Much shorter route to Kandla and Mundra ports decongesting the existing rail route; saved OPEX
PPP- Kutch Railway- Current Status

- Company has been making huge profits and is paying Dividends
- Good value is created and all stakeholders have benefitted
- Company is preparing for doubling the line by investing INR 14 billion through internal accruals.
Precautions In Estimation and Evaluation

• Tendency to over estimate revenues and under estimate investments/ costs.
  • In KRCL, traffic from a Refinery and a gas cracker plant was anticipated, but did not materialize as the prospective customers went ahead with pipe line. No firm tie up was done with them.
  • Adequate time not given for Planning.
• Sensitivity analysis? Often not done.
• Risks and mitigation mechanism not in place
Precautions In Estimation and Evaluation

- Accrual Accounting data has to supplement analysis. Cash flow projections do not capture the expenses which would accrue during project life but are required to be paid later, e.g., accrued liability for the staff for leave salary/ gratuity, pension earned etc, are paid much later.
Precautions In Estimation and Evaluation

- In IRR calculations, we project both future cash inflows and outflows. If costs go up but proportionately prices of our services do not keep pace, net flows would be adverse. In IR, in recent past, passenger fares were not raised for 10 years despite increase in costs, thus straining its finances.
Cash Flows From Railway Projects

Project duration includes both construction phase and operative phase. In construction phase there is typically only cash outgo, while in operational phase there would be both outflow and inflow. Unless this inflow is substantially more than the outflow for several years in operational phase, the IRR would not be as anticipated.
Cash Flows From Railway Projects

- As the cash flow from operations is very vital, it has to be monitored rigorously. For that,
  - It is necessary to monitor capacity utilization, through dynamic pricing, marketing.
  - In service sector, if service is not sold, it cannot be inventoried as it is like a perishable commodity.
  - Sell services even at reduced rate if necessary but get cash flows. In IR, in the return direction if the rakes are empty, whatever rate we get will add to the bottom line.
Cash Flows From Railway Projects

• Automatic upgradation of passenger tickets when there are vacancies in upper classes, helps better capacity utilization, get revenue and also delight the customers. Such cash inflows help improve IRR
• Look for untapped avenues: In IR, about a decade ago, it was noticed that the wagons were being loaded much above the rated Carrying Capacity (CC) with payment for CC. A decision was taken to officially increase the capacity as CC+ 8 tonnes etc. This boosted cash inflow.
Cash Flows - More Concepts

Revenue Generation
Real estate development or selling the rights for that purpose, exploring for advertisement revenues could boost the inflow.

Control Duration - Incentives and Penalties
Incentivizing early completion of phases of work and penalizing the delays would infuse discipline, improve timely completion and cash inflow generation.

Profit Centre Approach
Introducing Profit Centre Approach as a part of Responsibility Centre Approach for incentivizing the right behavior.
Cash Flows - More Concepts

Value Engineering

Value engineering for cutting the costs without compromising with functionality could save cash.

Pricing

Pricing for value based user charges and changing them dynamically, would help generate resources.

Zero Based Approach

Zero based approach would help reduce flab.

Gold Plating

Look for tendency for gold plating.
Cash Flows - More Concepts

Involve Private Sector

Since Private sector would not become partner unless it senses profit, good response to PPP based bidding could indicate that there is value in the business model.

Think Big

Even if the private parties benefit in the deal, so will Government / Public. Not doing a deal implies an irretrievable loss to all.
While financing the project based on evaluation, due diligence in estimation is required.

During the operational phase, pricing, tapping avenues for cash in flow and monitoring and reducing wastages is important.

Capacity utilization requires constant monitoring and decision making, which is necessary for better cash flows.

Constant vigilance can pay handsome dividends.
Suggestions for Sri Lanka

Three tier thought process

Raising Capital

Generating Revenue

Investing in sustainability
Raising Capital

- Financing Railway projects/assets
  - SPVs for leasing can be like IRFC in India
  - PPPs where private parties can be attracted with possible value creation. This would happen when party has stake in having such project (like port connectivity projects in India)
- Viability Gap Funding as Capital subsidy
- Levy of cess on diesel: In India, Union Government has levied such cess. Amount collected is given to part finance construction of ROBs/ RUBs
- SPV for multimodal solutions like CONCOR
Generating Revenue

- Revenue from miscellaneous streams
  - Advertisement space inside, outside coaches, outside wagons, on platforms, TVs on platforms
  - RoRo
  - Leveraging property, land/buildings. Even letting out vacant Rly Quarters be thought of
  - Permitting telecom towers on spare Rly land
Investing in Sustainability

• Invest in Projects like Metros
• Metros are economically viable as they reduce,
  • wastage of man-hours in traffic snarls,
  • pollution,
  • fossil fuel consumption,
  • road accidents,
  • healthcare costs,
  • depreciation of roads, vehicles.
• Subsidizing Metro losses cheaper than all above
• Revenue from property development
• Carbon credits (like Delhi Metro)
Thank You