

FINANCING OF INFRASTRUCTURE PROJECTS

*Course for Railway Executives of
BIMSTEC, MGC & SAARC, etc countries .*

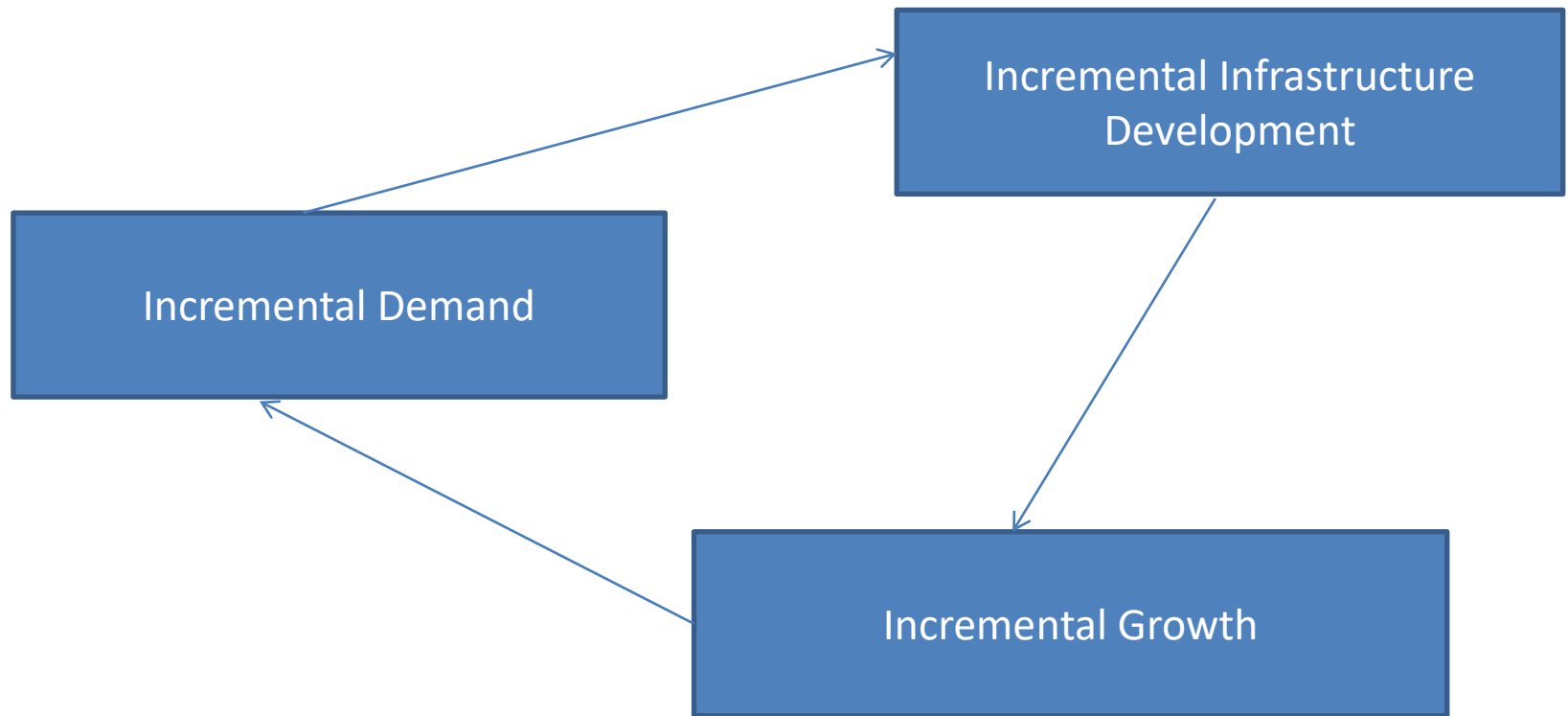
NATIONAL ACADEMY OF INDIAN RAILWAYS

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The Infrastructure Cycle



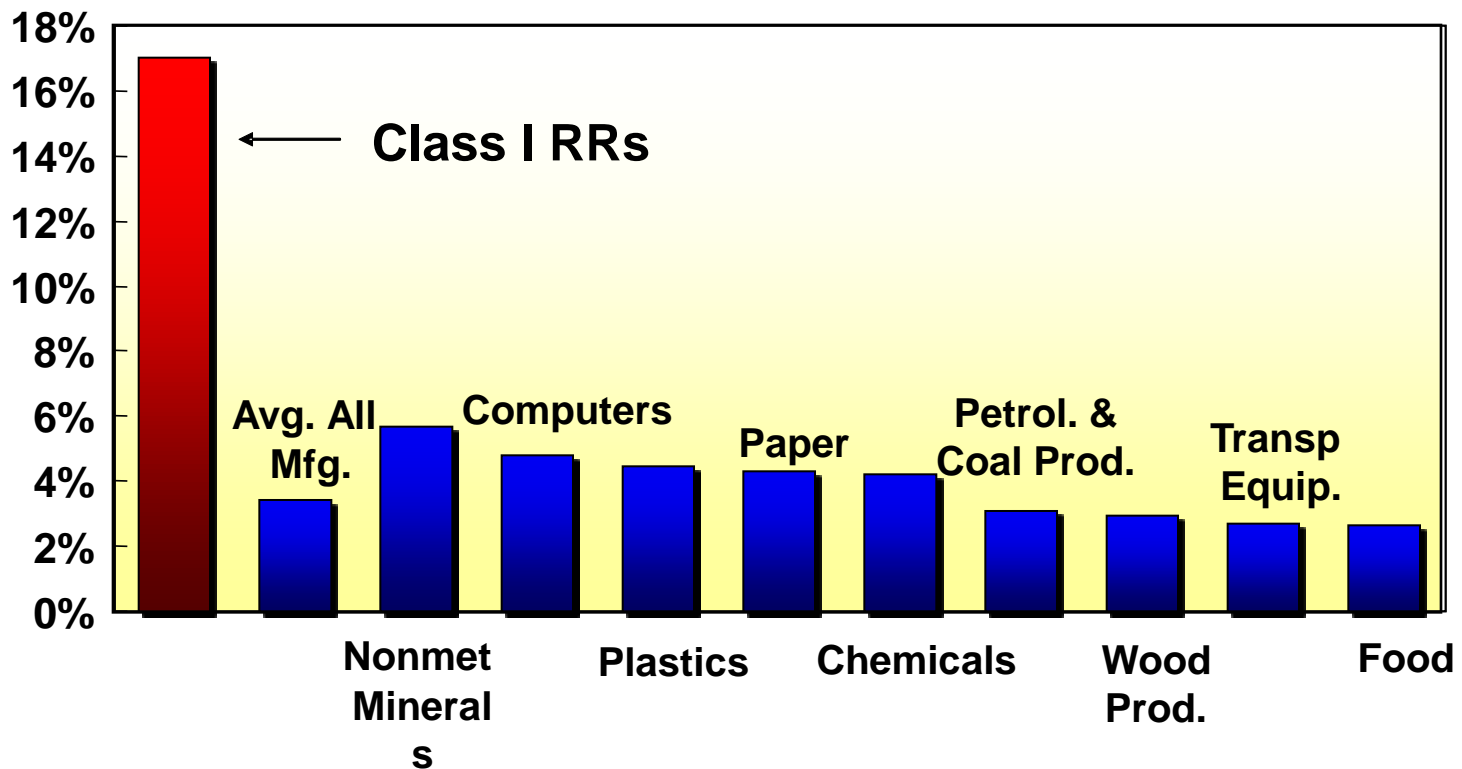
Introduction to Financing of Infrastructure Projects

- Projects are almost always *capital intensive*, have *long gestation* with revenue streams over *extended periods* and financing needs include:
 - Resource mobilisation for project expenditure
 - Arrangement for debt servicing matching revenue flows
 - Strategy for risk management

There is also need for legal framework to Government norms, to aid in resource mobilisation & for timely implementation

Railways Have Far Higher Capital Expenditures Than Other Industries

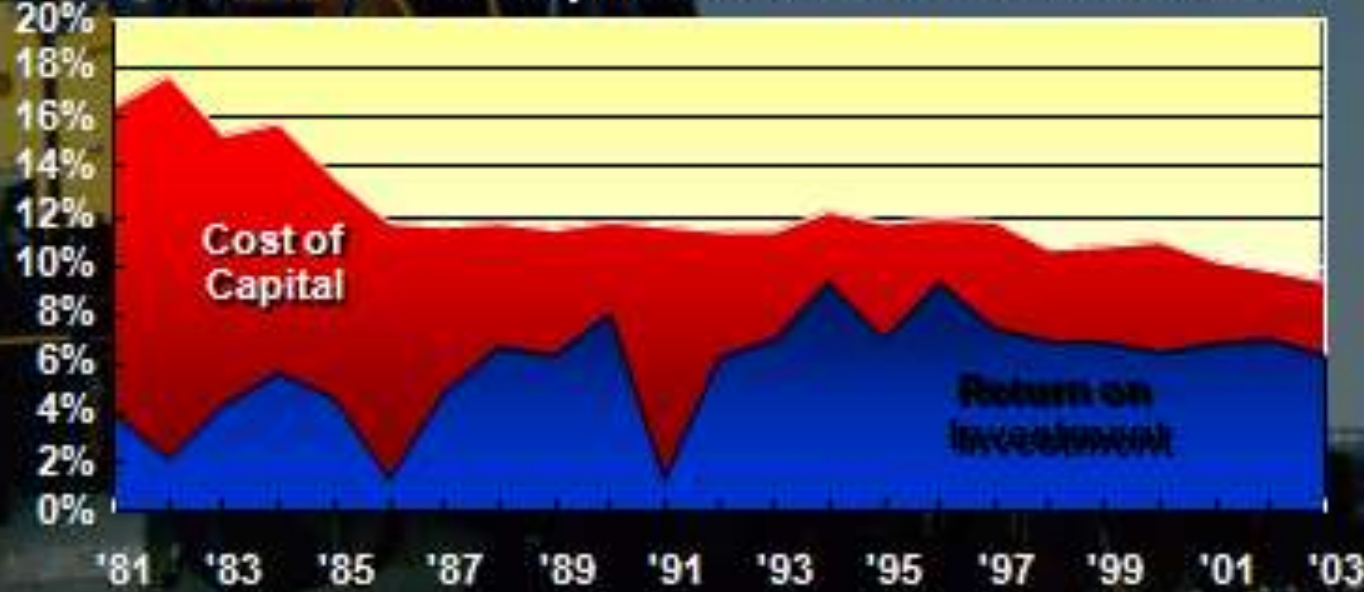
Capital Expenditures as a % of Revenue: Avg. 1999-2003



Sources: U.S. Census Bureau, AAR

Railroads Do Not Earn Their Cost of Capital

Class I Cost of Capital vs. Return on Investment



Source: Surface Transportation Board



Basic Understanding of Project Finance

- How projects are analysed, appraised, financed and managed
- Best practices and partnerships in concession rights awards, contract design and negotiation
- Sectoral reforms, technological characteristics and regulatory structures and availability of and cost of private finance
- Constraints on and interests of main contracting parties involved in the project

Financing of Projects

- The subject per se covers various methods of financing infrastructure projects
- This presentation will primarily relate to financing of infrastructure projects in the context of regional connectivity
- Financing projects in one country involve similar problems for most projects
- Projects in different countries of a region involve differing problems.

Characteristics of Project Financing

- Every project has a different characteristic
- However a commonality exists in each project financing amongst the parties involved
 - Solidity in contractual relationship
 - Presence of a community of interest
 - Understanding of strengths and weaknesses of each other

Infrastructure Project Characteristics

- Traditionally Government funded
- Normally for public utilisation
- Impact socio-economic environment
- Capital Intensive and Long gestation period
- Assets have long life
- Either '*Open Access*' or '*Limited Access*' Services

Infrastructure projects are typically

- High Capital cost outlay in the pre-commissioning stage
- Awarded by Government/Semi-Government Agency on a concession typically 10-30 years
- Commercial levy from users over the period of concession
- Returns based on concession granted by the Awarding Agency
 - *Assured returns, tariff fixation ,extension of concession period etc*
- Cash flows - Lower upfront flows, higher back-ended flows as acceptability of infrastructure facility by users increases

Financing in one country

- The financing has similar problems:
 - Funds shortage is common
 - Investment policy would be the same
 - Funding institutions would have same approach
 - In connectivity projects physical connectivity would not be an impediment
 - Government decisions are predictable

Financing Regional Connectivity

- The financing has differing problems in each country:
 - Funds availability will differ
 - Investment policy may not be the same
 - Funding institutions have differing policies
 - In connectivity projects physical connectivity at times may have political implications
 - Government policies not common .

Steps – Project Development

- Determine scope of project & cost
- Determine other expenses: Development costs, Financing costs, costs to mitigate Environment & Social impact etc.
- Assess total 'Traffic'
- Determine Operation & Maintenance (O&M) costs
- Risk & Mitigation Plan
- Project cash flows through concession period
- Financial analysis –most efficient financing method

Due Diligence - Risks

Project Completion Risk

- Design & Construction Risk
- Cost & Time Overrun Risk
- Financing Risk

Market Risk

- Volume & Price Risk
- Payment Risk

Due Diligence - Risks

Operating Risk

- Performance Risk
- Maintenance Risk

Regulatory / Political Risk

- Change in law or Political Force Majeure

Force Majeure Risk

- Events outside control of borrower / lender

Evolution of Project Financing

- *Earlier*
 - Largely based on sponsors' strengths
 - Limited structuring
 - Sometimes sponsors did not meet commitments
- *Now*
 - Based on future cash flows as main source of debt servicing
 - Structured for risk mitigation
 - Focus on project architecture

Structuring Characteristics of Infrastructure Projects

- ‘Willingness’ to Pay by user is important
- Normally implemented when critical
- Natural growth of Demand likely
- Facility designed to provide sufficient spare capacity – usage low initially
- Debt: Equity ratio; Debt Service Coverage Ratio important criteria

Financial Structuring

- Is process of *Managing Financial Risk* and *Building Consensus Amongst Stakeholders*:
 - Balancing risk profiles of participants
 - Suit expectations of parties on investments
 - Principle of higher reward for higher risk applies
 - Covers estimated cash flows, gearing, available financing, terms of finances and risk appetite
 - Preferably project debt and equity paid back from cash flows generated by project

Sources of Finance

- Speciality Funds – equity funding
- Debt Finance
 - Long term debt from international markets
 - Developmental Financial Institutions
 - Commercial banks
 - Multilateral Institutions
 - Export Credit Agencies

Other Options of Funding

- Bonds :
 - Taxable
 - Tax Free (where permitted)
- Discount offers to beneficiaries in user rates
- Gap Funding by Government
- Local Government grants

More Funding sources

- Pension funds, Provident funds
- Insurance funds
- Trust Funds

These look for safe investments, less risk and assured regular return over extended periods – ideally suited for infrastructure projects – tax incentives also available

Steps in Project Financing

- Evaluation of Project
 - Risks to be identified and their assessment
- Optimise the Funding Sources of the Project
 - Loans
 - Equity
 - Capital Structure
- Match Risks with Corresponding Guarantees
 - Cash flow
 - Completion guarantees
 - Management etc
- Assessment of Guarantors
- Create a secure Legal Network

Project Finance Types of Capital Available

- Equity
 - Ordinary : Sponsors; Contractors: Equity Funds
 - Preference
- Debentures / Bonds
- Convertible Debentures / Loan Stocks
- Bank Loans
- Subordinated Debt
- Government Export Credits
- Trade Credit
- Leases

Capacity Building in Government

- Capacity building entails imparting of knowledge and skills for success of PPP projects amongst persons involved.
- Primarily it becomes an exercise in human resource development in a specialised area covering multiple disciplines related to that field.
- The target persons would be those whose performance would be crucial for success in dealing with PPP projects.

Why Public Officials

- PPP projects are primarily for public good
- Traditionally they would be done by Government
- Conceptualisation, selection of the project done is Government domain
- Development, assessment and due diligence also done by Government
- Success primarily depends on performance and skills of public officials
- In case of default by private partner onus to take over PPP infrastructure rests with Govt.

PPP - Needs Identified

- Focal point for aggregation of PPP opportunities to be created
- Increase capacity for PPP management – finance, evaluation, legal, process, construction oversight
- Create skills in managing partnership over extended tenures
- Increase capability for identification, and development of PPP projects
- Strengthen contract enforcement systems
- Create long-term debt instruments

Capacity Building

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As the term implies – Developing increased capacity to undertake PPP projects with reasonable success. How?

Facilitate PPP projects **underway** / planned and in future

- Continuous process to improve environment for supporting PPP
- Usher in Laws, Rules, and reforms to facilitate PPP financing, regulation & user acceptability
- Provide equitable contract enforcement system

Develop training programmes for institutions / sectors / individuals

- Select / create organisation(s) for imparting PPP skills
- Design training programmes for programme / project level
- Training to cover target groups in both Govt. And private sector
- Develop cadre of trainers to broad base training

The path ahead.....

- Substantial scaling-up is needed for which initiatives to build capacity must become effective
- Demonstration effect of successful PPP projects is the best advertisement for PPP
- Knowledge sharing amongst countries in the region most essential for success in each country

HARD TRUTH - INFRASTRUCTURE PROJECTS

- No matter what financing is done or who are the investors or what is the shareholding pattern –

THE GOVERNMENT IS ULTIMATELY RESPONSIBLE FOR THE ASSET

Thank You for your attention

On behalf of AITD I wish all participants a pleasant stay and fond memories of their visit to India