

**INTERNATIONAL MANAGEMENT INSTITUTE, BHUBANESWAR**

**Post Graduate Diploma in Management (PGDM), Term V**

**Course title: Project and Infrastructure Finance (FN609)**

**Credit: 3      Session Duration: 90 minutes**

**Introduction**

Capital investment and financing decisions are perhaps the most strategic decisions for public/private firms and for the government. Their importance stems from three interrelated factors: (i) capital investment involves substantial outlay of funds; (ii) the investment consequences extend far into the future; and (iii) there are risks of project failure to deliver the desired output/results. Financial viability of the investment project depends to a great extent on project's ability to generate adequate cash flows, means and cost of financing, and risk mitigation measures. The latter factor is extremely important for infrastructure projects. The economic and financial viability of infrastructure projects hinges critically on how the various risk factors are being identified and the risk mitigation systems designed. Resource mobilisation for project financing and various contractual agreements (among the project participants) also depends on soundness of the risk management systems.

**Objectives**

This course intends to provide a useful insight into the intricacies of financial and economic appraisal of projects with special reference to infrastructure projects. The students will also understand and appreciate various project financing options including 'non-recourse' project finance, and learn tools and techniques of risk analysis (sensitivity analysis, and simulation).

**Pedagogy**

The course will be delivered through a combination of lectures, exercises, and case studies. In addition, the students will learn relevant application of excel including simulation technique for risk analysis.

**Session Plan**

Attached separately

**Evaluation Component and weightage**

Class participation: 10%

Quizzes/Assignments: 40%

End Term: 50%

**Reference Books**

1. Project Financing by Peter K Nevitt and Frank Fabozzi (Euromoney Publication)
2. Henry A Davis, *Project Finance: Practical Case Studies* (Euromoney Publication)
3. Project Financing, Finnerty, John Wiley and Sons

Session No.	Topics	Readings
1 - 4	<ul style="list-style-type: none"> <li>• Review of capital budgeting process, tools and techniques <ul style="list-style-type: none"> <li>▪ DCF techniques (IRR/NPV/APV)</li> <li>▪ Cost effectiveness analysis</li> <li>▪ Inflation and capital budgeting</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>1. Using APV: A better tool for valuing operations</li> <li>2. Least-cost analysis for project selection</li> <li>3. Economic justification of investments</li> <li>4. A note on inflation and capital budgeting</li> </ol>
5 - 6	<ul style="list-style-type: none"> <li>• Estimation of WACC <ul style="list-style-type: none"> <li>▪ Cost of debt</li> <li>▪ Cost of equity (estimation of share beta using excel; estimation of project beta)</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>5. CAPM &amp; estimation of beta</li> </ol>
7 - 9	<ul style="list-style-type: none"> <li>• Financial appraisal of project</li> <li>• Economic appraisal of project</li> </ul>	<ol style="list-style-type: none"> <li>6. Cogeneration plant (case study)</li> <li>7. Guidelines for economic analysis of projects</li> <li>8. Minor oil field exploration project (case study)</li> </ol>
10 - 14	<ul style="list-style-type: none"> <li>• Domestic sources of project financing (including structured obligation and subordinated debt)</li> <li>• International sources of project financing (syndicated loans, bonds, export credit, GDRs/ADRs)</li> <li>• Challenges of infrastructure financing</li> <li>• Project financing through securitization</li> <li>• Discussion on select cases of project financing by the World Bank and ADB</li> </ul>	<ol style="list-style-type: none"> <li>9. Primary issue in the capital market</li> <li>10. Structured obligation (RIICO bond issue for RSEB)</li> <li>11. A note on international sources project financing</li> <li>12. ECB guidelines in India</li> <li>13. Long term financing of infrastructure</li> <li>14. Innovative financing</li> <li>15. Project financing through securitization (L&amp;T case study)</li> </ol>
15 - 17	<ul style="list-style-type: none"> <li>• BOT projects and non-recourse project financing</li> <li>• Model concession agreement (Planning Commission)</li> <li>• Financial modeling for PPP</li> </ul>	<ol style="list-style-type: none"> <li>16. Privatized infrastructure – the BOT approach</li> <li>17. Non-recourse or partial recourse project financing</li> <li>18. Model concession agreement (Planning Commission): <a href="http://planningcommission.gov.in/sectors/index.php?sectors=infrastructure">http://planningcommission.gov.in/sectors/index.php?sectors=infrastructure</a></li> <li>19. PPP financial modeling for a regional hospital</li> </ol>
18 - 20	<ul style="list-style-type: none"> <li>▪ Risk analysis (including application of Monte Carlo Simulation) and risk mitigation</li> </ul>	<ol style="list-style-type: none"> <li>20. Infrastructure project and risk analysis (a case study of power project)</li> <li>21. Project financing through market securitization (L&amp;T case study)</li> </ol>