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PROJECT APPRAISAL

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What is Project Appraisal

- It is an essential part of PCM.
- Involves verification of the basic data, assumptions and methodology used in project preparation.
- An in-depth review of the work plan, cost-estimates and proposed financing is an essential part of Project Appraisal.
- Assessment of project's institutional and management aspects would be part of an integrated project Appraisal.
- Validity of the financial (& possibly economic benefits particularly for the large projects) and social benefits expected from the project helps in taking a decision on viability of a Project.
- An Appraisal helps provide rationale for selection / rejection of a project after considering all aspects of social, technical, economical and financial yardsticks of a project.

Major Aspects of Appraisal

- Technical Appraisal
- Institutional Appraisal
- Social Appraisal
- Economic & Commercial (where products need to be marketed) Appraisal
- Financial Appraisal
- Environment Appraisal

TECHNICAL APPRAISAL

- Engineers, Personnel with necessary technical skills & experience to conduct such an analysis. (If necessary outside expertise or even foreign consultants may be required)
- Need to compare / analyse with experience in similar other projects.
- One would need to go through the entire process and all major stages involved in the project, to ensure if all essential aspects have been covered.
- Accuracy of Technical data being used for Technical analysis is extremely important.
- Purpose of a Technical Appraisal is to ensure that project is technically viable and there are no major gaps likely in such an analysis.
- There are specialised agencies which help even review Technical Appraisals to improve their quality.

INSTITUTIONAL APPRAISAL

- An Institutional Appraisal assesses the soundness of institutional arrangements for implementing the Project.
- It covers
  - ORGANISATIONAL arrangements,
  - adequacy of PERSONNEL & examines the their HIERARCHICAL line of authority,
  - FINANCIAL MANAGEMENT processes, including fund flows, capacities of the people involved.
- In large projects involving several institutions, channels of communication and their working relationship need to be tested. In such situations often failure comes due to non-consideration of ground realities.
- Institutional appraisal normally would highlight capacity gaps and identify Training requirements.

SOCIAL APPRAISAL

- A Social Appraisal considers impact of the project’s interventions and if these are in line with social objectives of the Project.
- Depending upon the policies of the organisation, it could include Gender Assessment, Impact on Children, etc.
- A project could specifically require how differently-able would access the benefits under the project and if there are any physical or other restrictions on such persons.
- Some projects may want to promote socially backward persons, it would be the task of a Social Appraisal Team to ensure that the steps suggested are likely to acheive these objectives.

ECONOMIC APPRAISAL

- Generally undertaken when project is likely to have a significant impact on Country's Economy.
- The appraisal would address, if the investment proposal contributes to the developmental objectives of the country.
- Two major steps are, 'pricing of project inputs and outputs' and 'identification of project costs & benefits'.
- Generally uses constant prices.
- While determining above following needs to be considered:
  - Opportunity Cost
  - While determining costs, taxes & duties are treated as transfers and thus excluded from capital and operating costs.
  - Credit transactions do not reduce national income
  - Depreciation is not considered as a cost
  - Sunk Costs or irretrievable costs
  - Costs / benefits : With or Without Project

FINANCIAL APPRAISAL

- A Financial Appraisal involves assessment about
  - financial impact
  - Efficient resource usage
  - Incentives
  - Finance Plan
- It determines requirement of funds and their timing and expected returns on investment.
- It also helps in financial efficiency and liquidity.
- Cost and benefits are calculated using current market prices and NPVs are calculated using discounted rates.

Appraisal Methods

- Appraisal methods can be broadly categorised between Undiscounted & Discounted methods.

Payback Period (Refer Exercise 1)

- Time it takes for a project's net cash inflows to equal the initial cash investment.
- Used as an initial screening process and should be subjected to further tests.
- Major disadvantage, timing as well as total cash-flows ignored and hence total profit or time value of money not considered.
- Terminal values of projects are easy to understand but not easy to compare. (Refer Exercise 2)

Net Present Value (NPV) method

DCF Techniques

- Discounted Cash Flow techniques discount all the forecast cash flows of an investment proposal to determine their Present Value.
- Based on principle that value of Re 1 as on today is more than Rs 1 in future.
- Major advantage of the DCF appraisal method is that it takes account of the time value of money.
- Net Present Value of a project is the difference between the projected discounted cash inflows and discounted cash outflows.
- As a general rule projects with a positive NPV would be selected. (Refer Exercise 3)

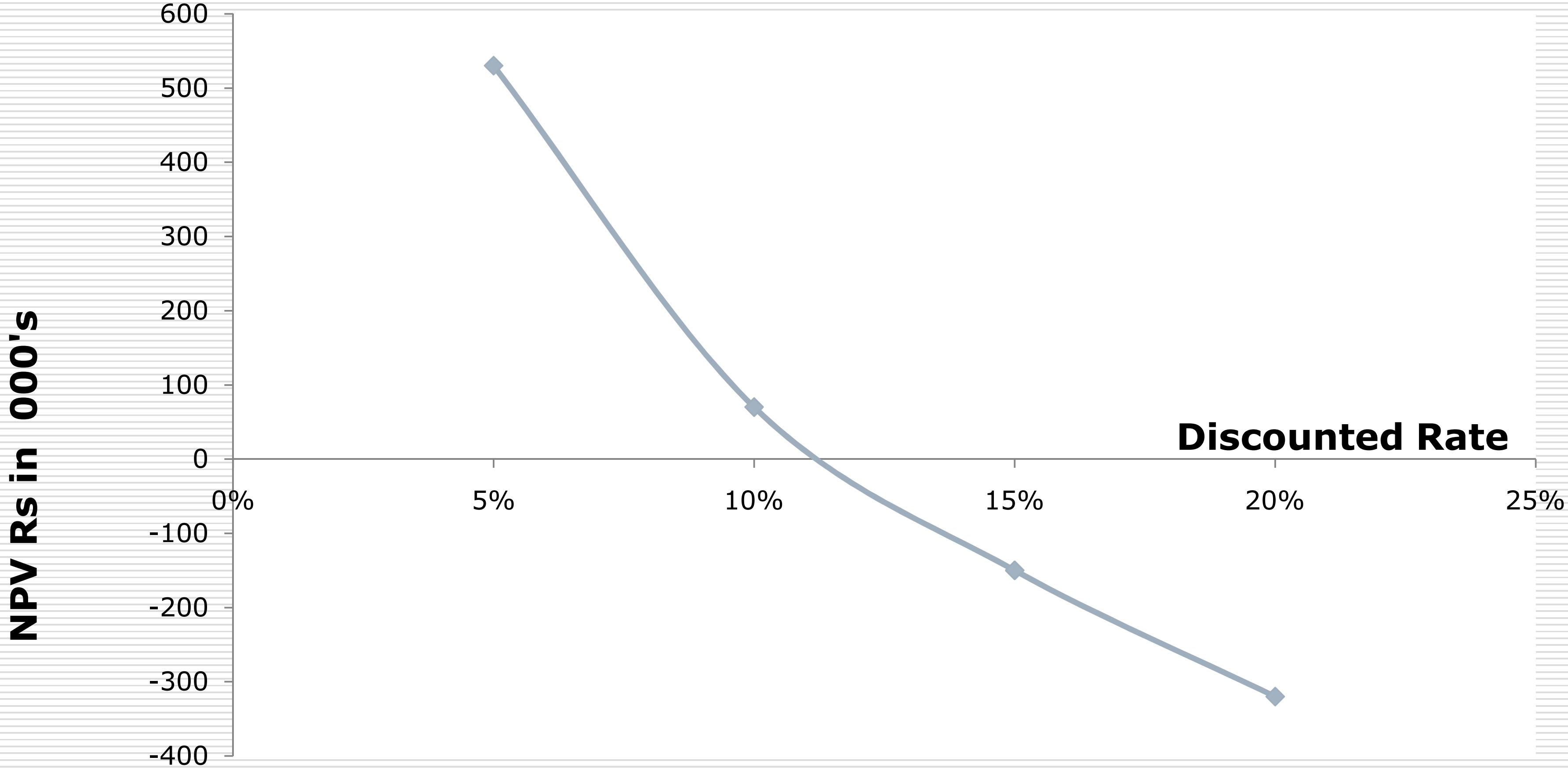
NPV …… *cont'd*

- DCF Techniques are based on cash flows and not on accounting profits.
- Similarly, where regular cash flows are expected, these are termed as annuities.
- If there was no inflation would DCF techniques be still used ?
- One of the problem with NPV approach is how should one determine the discounting rate.

IRR Method

- IRR : Internal Rate of Return
- It is the DCF rate of return (DCF Yield) or discount rate, if NPV is ‘0’.
- While NPV is a absolute measure IRR is a relative measure.
- If the IRR exceeds a target rate of return the project is worth undertaking.
- A number of NPVs are calculated using different discount rates. These NPVs are plotted on a graph to calculate IRR.

IRR Graph


600
500
400
300
200
100
0
-100
-200
-300
-400
NPV Rs in 000's
Discounted Rate
0%
5%
10%
15%
20%
25%

Comparison of IRR / NPV

- IRR is easier to understand by a wider community, since it states yield in terms of %.
- NPV apprach requires a discount rate, which may not always be possible.
- IRR on its own ignoring the initial outlays and profits can be misleading.

Thank You.

Bibliography:

-ICAEW, Study Notes

- Planning Commission, Pakistan