Economic Analysis of Projects: Principles and Concepts

29 May 2006
What Economic Analysis of Project Really is:

• More than rate of return calculations
• Framework/tool to select and design good projects
  - relevant and responsive (Economic Rationale)
  - feasible, result-delivering - contributing to welfare of country and its people (Project Economic Analysis)
### Differences between Economic & Financial Analyses:

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Financial</th>
<th>Economic</th>
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<tr>
<td>Project entity or participants</td>
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<td>Economy-wide, all members of society</td>
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| Benefits and Costs | Financial flows | Non-market values, Opportunity costs |

For a project to be economically viable, it must be financially sustainable.
Selected Steps in Project Economic Analysis

1. Macro Context
2. Sector Analysis
3. Rationale for Public Sector Involvement
4. Choice of Modality
5. Demand Analysis
6. Alternative Analysis and Least Cost
7. Valuation of Benefits & Costs
8. Financial & Institutional Sustainability
9. Distribution Analysis
10. Sensitivity Analysis
11. Monitoring & Evaluation

Validating the Economic Rationale
Macroeconomic Context

A project cannot be designed in isolation from the rest of the economy.

- project must be relevant vis-à-vis country and ADB objectives
  - link to country broader development objectives
  - link to CSP
- country’s resource position must be carefully assessed
- macroeconomic factors may affect project performance
  - identify factors most likely to influence target sector
  - economic outlook
Sector Analysis

What are key problems and issues that need to be addressed?

- policy and regulatory environment
- who supplies & what constraint do they face
- financing: who pays for the good or service
- role of public versus private sector

identify possible areas for investment and policy reform
Public Sector Rationale and Choice of Modality

Why should there be public sector intervention?

- Market or institutional failures
- Public good
- Equity issue
- What is counterfactual if government is not involved?

What Modality is the most appropriate?
Demand Analysis

How much of the output is wanted? How much are users willing to pay for it?

- Project design should be demand-driven
- Assess demand for product or service
- Identify demand shifting factors
- Project growth rate of demand, influence of demand shifters (size of project)

basis for identification of project size, timing and overall benefits
Alternative and Least Cost Analysis

What is the most efficient way of addressing the problem at hand?

- Evaluate alternative project design in terms of lending modalities, financial arrangements, scale and timing, location, etc.
- Explain why proposed alternative chosen (least cost alternative)
Valuation of Benefits & Costs

- Assess what will happen w/o project (counterfactual)
- Identify project benefits & costs
- Value project benefits & costs
- Economic viability: Benefits > Costs
- Cost effectiveness analysis if benefits cannot be valued
Financial and Institutional Sustainability

Are there enough resources to ensure flow of benefits?

- Assess financial performance of project entity for revenue generating projects
- Assess self-financing capacity of project entity
- Fiscal impact (implicit or explicit subsidy)
- Sources of funds to meet net financial requirements
- Institutional capacity assessment
Distribution Analysis

Who benefits and by how much?

- Identify groups that gain or lose
- Assess size of gains and losses
- Target groups (poor, women, etc.)

shed light on likely impact of project, sustainability
**Sensitivity and Risk Analysis**

*What are the chances that benefits & costs will be realized as anticipated?*

- Identify variables to which project is sensitive
- Assess change in parameters required to change project decision
- Assess likelihood of these changes occurring
- Consider mitigating actions against main sources of uncertainty
Monitoring & Evaluation

Do initial assumptions maintain validity throughout project life?

• Identify key variables necessary to measure project outcome/impact
• Establish system to collect data on all key variables
Overall Assessment

- Is project relevant in country/sector context?
- Has rationale for public sector intervention been clearly established?
- Does project incorporate best alternative design?
- Is project economically sound?
- Is project feasible/sustainable?
# Key Areas of Analysis in ADB’s Project Processing Cycle

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<td></td>
<td>1. Macroeconomic context assessment</td>
<td>1, 2, 3. Update of macroeconomic, sector context, demand analyses</td>
<td>2, 3. Sector and project demand analysis</td>
<td>1-5. Overall Assessment of developing project investment</td>
<td>1-10. Full confirmation of the project’s economic viability and resolution of outstanding economic issues</td>
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<td>3. Demand Analysis</td>
<td>5. Identification of project alternatives</td>
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<td>4. Identification of economic rationale and operation prospective</td>
<td>6. Preliminary identification of benefits and costs, and distributional issues</td>
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<td>7. Identify fiscal and financial sustainability issues</td>
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<td>8. Full identification of costs and benefits, including methods of measuring benefits and costs</td>
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<td>1-7. Expectations/ overall assessment of the proposed project investment</td>
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**Output:**
- CSP/Project Concept Paper
- TA Paper
- Interim/Draft Final Reports
- Draft RRP with Supplementary Appendixes
- RRP