SESSION 1.1

OVERVIEW OF ECONOMIC ANALYSIS IN ADB OPERATIONS

Introductory Course on Economic Analysis of Investment Projects

Economics and Research Department (ERD)
What Does Economic Analysis Do?

EA - More than rate of return calculations; Integrated framework/tool to select and design good projects

- To help identify areas where investment is needed
- To establish the economic rationale for public sector involvement
- To help make the choice among alternative instruments and solutions
- To assess a project’s economic benefits and costs, potential development impact, and potential risks
Applying EA in ADB Operations

• At regional level, economic analysis underpins ADB’s corporate strategy and assessment of development outlook.

• At country level, economic, thematic, and sector work (ETSW) provides basis for Country Partnership Strategy
  ▪ What are the binding constraints to growth and poverty reduction in a particular DMC?
  ▪ Why should the public sector intervene?
  ▪ Why should ADB be involved and what instruments to use?

• At project level, economic analysis establishes economic rationale and viability for each project
  ▪ Ensure each project is economically viable, cost-effective, and generates sustained development results
Dimensions of Economic Analysis: Relevance

Country/sector analysis

What is the problem?

Why should Public Sector be involved?

These questions identify basic problems/needs, underlying causes, and appropriate role of the government.
Dimensions of Economic Analysis: Responsiveness

There is a menu of choices for taking actions; one of them would be most appropriate to achieve agreed goals.
Key Areas of Project Economic Analysis

1. Assess macroeconomic context
2. Assess sector context
3. Assess demand
4. Identify economic rationale
5. Identify project alternatives
6. Identify and compare benefits and costs
7. Assess financial and institutional sustainability
8. Undertake distribution analysis
9. Undertake sensitivity and risk analysis
10. Establish a Project Performance Monitoring System
Selected Steps in Project Economic Analysis

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

Validating the Economic Rationale

PROJECT Economic Analysis
Macroeconomic Context

A project cannot be designed in isolation from the rest of the economy. Economic outlook of the country is an important determinant of success/failure.

- Projects work best in healthy economies
- Unhealthy economies are a risk
- Macroeconomic distortions affect projects
- Key macro economic policies: monetary policy; trade policy; fiscal policy; other interventions (General economic outlook, growth potentials; Exchange rate changes; Competitiveness; Taxes, subsidies; Governance issues)
Sector Analysis

Identify binding constraints for efficient and equitable provision of goods and services in the Sector

- Sector context directly affects the project
- Project should be part of a plan

Sector Analysis

- Assess Sector performance and constraints
  - Binding constraints
  - Market / non-market failures
- Assess sectoral policies, institutional capacity, regulatory mechanism
- Review government's plan
- Relevance of ADB strategy
- Identify a set of actions
Economic Rationale

Why should there be public sector intervention?

Government should intervene only when market fails
- Market failures
- Equity issues

**Market failures** – necessary condition for public interventions

Governments also fail to intervene optimally

**Government (Non-market) Failures:**
- Non-optimal interventions
- Disrupt efficiently functioning markets
- Merit goods
Choice of Modalities

Aid Modalities

- Project loan
- Sector loan
- Financial intermediation loan
- Program loan
- Sector development program
- Private sector loan
- Multi-tranche financing facility
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)
- Demand and tariff

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

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

- Can the objective be achieved by policy reforms?

- Evaluate alternative project design in terms of lending modalities, financial arrangements, scale and timing, location, technical designs, etc.

- Explain why proposed alternative is chosen (least cost alternative)
Benefit-Cost Analysis

Provides objective framework, employs consistent and predictable analytical structure to examine the ability of a project to improve social welfare – a decision making tool

**STEPS:**
- Identification, quantification and valuation of project benefits & costs
- Discounting cost and benefits
- Economic viability: Benefits > Costs
- NPV, B/C ratio, IRR
## Differences between Economic & Financial Analyses

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<thead>
<tr>
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<th>Financial</th>
<th>Economic</th>
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<tbody>
<tr>
<td><strong>Perspective</strong></td>
<td>Project entity or participants</td>
<td>Economy-wide, all members of society</td>
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<tr>
<td><strong>Benefits and Costs</strong></td>
<td>Financial flows - revenue minus costs</td>
<td>Welfare Changes - measured by costs savings, WTP</td>
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Financial vs Economic Analysis

Financial Analysis

- Undertaken from the individual’s/project agency's perspective
- Consider only benefits and costs faced by production/decision making units
- Benefits and costs are evaluated using existing market prices
- Measures the project’s profitability for its participants
- Narrow focus on direct benefit/cost of project participants
- Verify incentives for project participants
- Help verify income increase, poverty reduction
Economic Analysis

- Undertaken from society’s perspectives
- Costs: Opportunity Cost/ Welfare Losses
- Benefits: Welfare Gains
- Convert financial benefit to economic benefits
- Shadow Pricing: financial prices of costs and benefits must be adjusted to allow for effects of
  - government intervention (taxes, subsidies, controls, quotas, etc.)
  - opportunity costs of resource use
  - market distortions (trade taxes and controls, labor market distortions)
  - externalities largely environmental
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
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
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.)
Overall Assessment

- Is project relevant in country/sector context?
- Has rationale for public/private sector intervention been clearly established?
- Does project incorporate best alternative design?
- Is project economically sound?
- Is project feasible/sustainable?