

SESSION 1.1

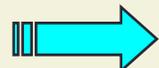
OVERVIEW OF ECONOMIC ANALYSIS IN ADB OPERATIONS

Introductory Course on Economic Analysis of Investment Projects

Economics and Research Department (ERD)

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What Does Economic Analysis (EA) Do?

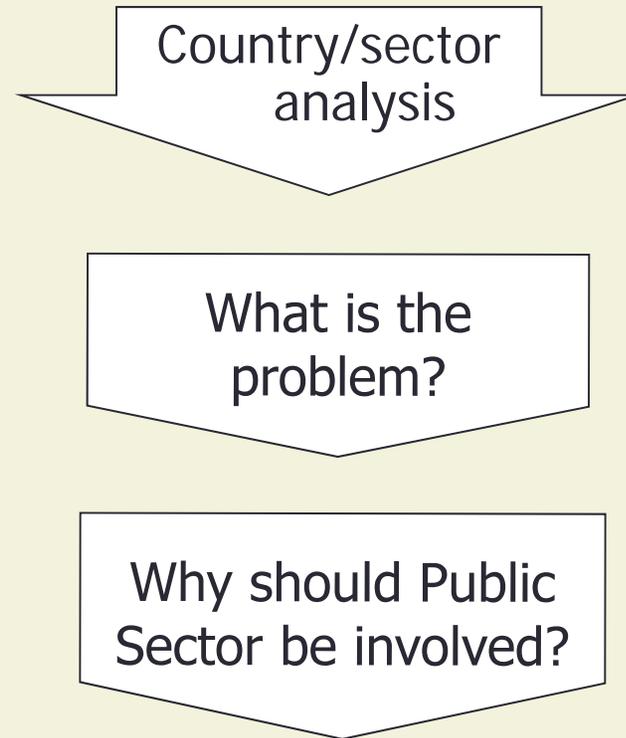
 EA - More than rate of return calculations; Integrated framework/tool to select and design good projects

- 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

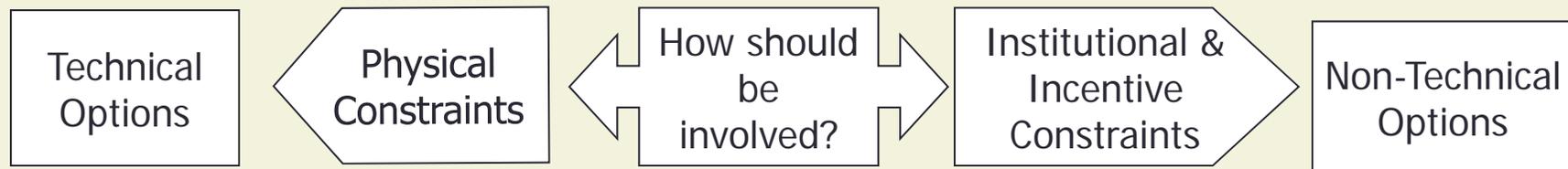
- At regional level, economic analysis underpins ADB's corporate strategy and assessment of development outlook.
- At country level, economic, thematic, and sector work (ETSW) provides basis for Country Partnership Strategy
 - What are the binding constraints to growth and poverty reduction in a particular 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



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	6. Identify project alternatives and conduct least cost analysis
2. Assess sector context	7. Identify and compare benefits and costs
3. Assess demand	8. Assess sustainability of proposed investment
4. Provide economic rationale and choice of financing modality	9. Undertake sensitivity and risk analysis
5. Establish a project design and monitoring framework (DMF)	10. Undertake distribution analysis

Selected Steps in Project Economic Analysis

1. Macro Economic Context
 2. Sector Analysis
 3. Economic Rationale for Public Sector Involvement and Choice of Modality
- } Validating the Economic Rationale
4. Demand Analysis
 5. Design and Monitoring Framework
 6. Alternative and Least Cost Analyses
 7. Cost Benefits Analysis
 8. Financial & Institutional Sustainability
 9. Risks and Sensitivity Analysis
 10. Distribution Analysis
- } 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, resource availability and utilization
- 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

Design and Monitoring Framework

Why is DMF important?

- tool to improve design and implementation of project
- helps with project conceptualization and understanding the project's potential impact.
- use to properly structure the economic analysis

A well thought DMF will establish clear linkage between the project's impact, outcome, outputs and inputs.

Identification of key assumptions and risks are helps stakeholders understand what needs to be provided for project to succeed.

Monitoring of outcomes and outputs allows effective project implementation and impact assessment.

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: $\text{Benefits} > \text{Costs}$
- NPV, B/C ratio, IRR

Differences between Economic & Financial Analyses

Financial

Economic

Perspective	Project entity or participants	Economy-wide, all members of society
Benefits and Costs	Financial flows – revenue minus costs	Welfare Changes – measured by costs savings, WTP

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
- Different focus on direct benefit/cost of project participants
- Verify incentives for project participants
- Help verify income increase, poverty reduction

Financial vs Economic Analysis

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 sustainable?

Thank you.