

New Development Bank
Policy on Financial Management and Financial Analysis, and
Economic Analysis of Projects

Owner: Operations Division

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Policy on Financial Management and Financial Analysis, and Economic Analysis of Projects

Change Log

Revision Date	Chapter revised	Revision Details

Table of Contents

Abbreviations.....	2
A. Introduction	3
B. Scope of the Policy.	3
<i>a. Financial management.....</i>	<i>3</i>
<i>b. Financial analysis and evaluation of projects.....</i>	<i>5</i>
<i>c. Economic analysis of project</i>	<i>6</i>
C. Responsibility.....	8
D. Disclosure	8

Abbreviations

EIRR	economic internal rate of return
ECOC	economic cost of capital
FAM	facility administration manual
FIRR	financial internal rate of return
MFF	multi-tranche financing facility
NDB	New Development Bank
O&M	operations and maintenance
PAM	project administration manual
PDB	project document for the Board
SCF	sector credit facility
TRR	tranche release requests
WACC	weighted average cost of capital

Financial Management and Financial Analysis, and Economic Analysis of Projects: Policy

A. Introduction.

- 1 Article 21 (vii) of the Articles of Agreement of the New Development Bank (NDB) requires that NDB applies sound banking principles to all its operations, and Article 21 (vii) requires NDB to take necessary measures to ensure its support is used with due attention to economy and efficiency. Further, Article 13e stipulates that NDB base its decisions only on economic considerations. To comply with these requirements, under this policy, NDB assesses economic and financial viability of projects, and requires sound financial management practices to be followed by its clients.

B. Scope of the Policy.

- 2 The objective of this policy is threefold. It requires the projects and programs financed by NDB (i) are governed by sound financial management arrangements during the entire cycle of the project/program; (ii) are financially viable; and (iii) lead to better economy wide impacts on allocation of resources, and result in production and distribution of economic benefits in an equitable and sustainable manner. The financial management policy will be applicable to all projects and programs financed/co-financed by NDB. The policy on financial cost-benefit evaluation and economic analysis of projects will be applicable to all investment projects, sub-projects financed by NDB, and the activities supported with supplementary financing.

a. *Financial management*

- 3 **Financial management assessment.** The policy requires assessing the capabilities of the executing agency and the implementing agency—in a broader sectoral and sub-national context and practices—to ensure they have the necessary human and technological resources; and policy, institutional and procedural arrangements needed for sound financial management of the project during its life cycle. The assessment of financial management arrangements encompasses all its dimensions such as—accounting standards and practices, financial planning and programing, fund raising, internal controls, monitoring and reporting, management of assets, and internal and external audit. The assessment should confirm the sufficiency and sustainability of financial management arrangements and may identify any weaknesses that need to be addressed during project implementation.

5. **Financial performance indicators.** At the time of appraisal NDB and the government identify key financial performance indicators to monitor the financial health of the project, its financial viability and sustainability and the project's impact on client's fiscal balance/financial position. The definition and scope of indicators is discussed and documented in the PAM/FAM. The executing/implementing agencies of all revenue earning projects financed by NDB are required to prepare and present annually, financial accounts, financial performance indicators, and updated financial projections. For non-revenue earning projects, NDB requires (i) pursuing of sound financial, internal control and management practices; (ii) maintaining of adequate accounting records and their timely audit and reporting; and (iii) ensuring sustainability of project's outputs during its life time. The requirements to monitor and report financial performance indicators, and pursue prudent financial policies are applicable to all projects and are included in the loan covenants.
6. **Cost estimates.** PAM provides total cost estimates along with details of key components of cost, and presents them in a manner that facilitates understanding of main cost drivers, and the cost of important project components. A summary of cost estimates is provided in the PDB along with the date of the cost estimates. Costs are estimated based on market prices and where possible, are compared with previous/ongoing project(s) after adjusting for the impact of inflation. The cost estimates are differentiated between base costs, contingencies, and financing costs (interest during construction, commitment charges, front-end-fee and other such costs). Contingencies are shown separately for variations in prices and quantities. The assumptions used to estimate contingencies are clearly stated in PAM and the PDB. Cost estimates are carefully reviewed at the time of appraisal by NDB for their accuracy, completeness, and reliability. Cost estimates are updated during the project implementation phase as needed.
7. **Financing plan.** The client prepares the financing plan for the project to show the financing needs and the source of financing. The financing plan should identify adequate funds to meet project's base cost, price and quantity contingencies, financial costs during construction, and provide adequate cushion to absorb the exchange rate risk and other risks. The financing plan should also confirm (i) the timely availability of adequate counterpart resources from the executing agency/government, and (ii) the co-financing arrangements, if any.

b. Financial analysis and evaluation of projects**i Financial analysis.**

8. Financial analysis is required for all NDB funded projects and programs. This involves in-depth—qualitative and quantitative—assessment of the reliability of financial data of the project, the executing agency, and the sector.
9. At the sector level, the analysis examines (i) the impact of institutional arrangements, market structure, regulation and sector policy on project's output and its delivery; and (ii) suggests changes in policy and regulatory environment that could enhance competition, productivity, and financial performance.
10. Analysis at the executing agency level examines (i) the accuracy and reliability of cost estimates, and the financing plan and arrangements; (ii) past and current financial performance of the executing/implementing agency with specific focus on key financial ratios, profitability, liquidity, debt sustainability, and pricing policies; (iii) operations and maintenance (O&M) costs of the project, past O&M practices of the executing/implementing agency and its ability to maintain the project optimally; and (iv) the risk to achieving project's objectives and the remedial measures needed to address the risk.
11. If the executing agency is an arm of the government, and/or the project is not revenue earning kind, the analysis should (i) assess the finances of the executing/implementing agency for the adequacy of its operations and maintenance budgets, (ii) estimate the fiscal impact of the incremental maintenance cost for each year of project's life and assess the government's capacity to provide the necessary funds for maintenance. In the absence of capacity to provide for adequate maintenance, the resource mobilization needs—either in the form of cost-recovery measures or through other tax and non-tax instruments—for adequate maintenance of the project need to be estimated. The focus of financial analysis of such projects is to ensure sustainability of their output during their entire life cycle.
12. Financial evaluation of project is carried out, for projects that recover costs of operation fully or partially, to establish their financial viability. The evaluation estimates profit/loss accruing from the project by assessing the extent to which the project generates adequate revenues to meet all its financial obligations. Financial evaluation considers all project related costs and revenues. The quality of financial evaluation depends on the accuracy of demand forecasts for its outputs and assumptions made about input and output prices; therefore due care has to be taken

Policy on Financial Management and Financial Analysis, and Economic Analysis of Projects

to ensure accuracy of and realism in demand and cost forecasts. Financial evaluation is carried out in real terms (at constant prices) and on post-tax basis.

13. Financial evaluation is done in real terms and post-tax basis. It involves five steps: estimation of project cost estimates, projection of project's net incremental cash flows, computation of weighted average cost of capital (WACC), estimation of the financial internal rate of return (FIRR), and conducting sensitivity analysis by estimating the impact of adverse changes in all key variables—that could have a bearing on project costs, demand for output, output prices—on the value of FIRR.
14. A project is considered potentially profitable, and recommended for NDB financing, if its FIRR is higher than WACC under all plausible sensitivity scenarios. However, a project whose FIRR is below WACC, may be financed if there are strong—developmental, economic, social, and environmental—justifications.

c. Economic analysis of project

15. Analytically the economic analysis of projects is akin to financial evaluation, in that, both assess the benefit an investment is likely to give. However, economic benefit is not the same as financial benefit which is essentially the profitability of the project to its investors in the case of a revenue earning project. Economic analysis estimates the benefits accruing to the economy from the investment. Thus, a project's financial evaluation and economic analysis are complementary.
16. All public sector and private sector projects receiving NDB financial support are required to undergo economic analysis to establish their economic viability, cost-effectiveness, and sustainability to be eligible for funding. Economic analysis needs to include the following inter-related steps.
 - a. Project rationale—Assessment of (i) market failures and justification for government/public sector involvement, and (ii) alternatives to investment—efficiency improvement versus capacity expansion.
 - b. Macroeconomic and sector context—Examine (i) the development problem(s) the project addresses in the context of country's overall development strategy and sector strategy; (ii) the policy environment in which the project will function with particular reference to—taxation and subsidies, trade controls, the exchange rate policy and the interest rate policy; and (iii) the impact of sector regulatory and policy environment and the market structure.
 - c. Examination of alternatives—Evaluate (i) situation with and without the project; (ii) the alternatives considered in terms of location, technology, cost, scale, timing; and (iii) the basis for selecting the preferred alternative.

Policy on Financial Management and Financial Analysis, and Economic Analysis of Projects

- d. Demand analysis—Analyse (i) the basis for demand projection and justification for project output; (ii) what factors influence demand; (iii) alternative sources of supply; and (iv) impact on demand of an increase in price or user charge.
- e. Economic cost-benefit-analysis—Requires an in-depth analysis including the following steps (i) Identify and value all the costs and benefits associated with the preferred project and compare it with the costs and benefits of without project situation; (ii) Identify and value appropriately, incremental and non-incremental outputs; (iii) consistently estimate costs and benefits in terms of common economic price level and a common unit of account; (iv) estimate where appropriate and possible, in addition to project's direct costs and benefits, the spill-over benefits and costs—such as environmental costs; and (v) estimate economic internal rate of return (EIRR) for the project in real terms (constant prices). EIRR is compared with economic opportunity cost of capital (EOCC) in real terms. Typically, EOCC is estimated between 10% to 12%. A project is considered economically viable if its EIRR is greater than the EOCC under all plausible risk scenarios. When EIRR cannot be computed because projects outputs are not possible to be valued, cost-effectiveness analysis has to be used to choose the least cost alternative to achieve the intended benefits.
- f. Risk and sensitivity analysis is carried out to assess how EIRR and cost effectiveness of a project is affected by risk and uncertainty associated with key variables. Switching values of these variables, that change the decision from selection to rejection, need to be presented for key variables. Quantitative risk analysis is carried out if the project's EIRR is close to EOCC and the project is large and with high level of risk. In other cases, risk analysis could be qualitative.
- g. Sustainability analysis covers two aspects—financial sustainability and environmental sustainability. For revenue earning projects financial evaluation establishes its sustainability by assessing if the returns are adequate for investors to participate in the project and provide for its operations and maintenance. Sustainability of non-revenue/partial revenue earning projects depend on subsidies. The magnitude of subsidies needed to sustain the project's output requires to be estimated and the ability of the fiscal system to provide the subsidies needs to be ascertained. To assess environmental sustainability, the project's environmental effects need to be identified,

Policy on Financial Management and Financial Analysis, and Economic Analysis of Projects

quantified, valued and integrated into the economic analysis for choosing between project alternatives and for assessing economic viability.

- h. Distributional analysis requires (i) projection of benefits and costs with and without the project for different groups—particularly the poor and the vulnerable. The analysis should also look at flow of benefits to different factors of production—including foreign investors.
- i. Monitoring—Identify key variables necessary to assess project’s outputs, outcomes, and impact, including the performance variables for the implementing agency. Project’s performance management system should establish a mechanism to monitor and periodically report project’s performance. This system has to be integrated into the design and monitoring framework of the project. Where necessary, baseline data have to be collected.

C. Responsibility

- 17. Project’s financial analysis and financial evaluation, and economic analysis are carried out by the project team at appraisal and endorsed by the director general of the concerned operations division. Financial evaluation and economic analysis are carried out at project completion by the client as part of the project completion report.

D. Disclosure

- 18. Financial evaluation and economic analysis of project are appended to the PDB, where necessary after redacting, and disclosed in accordance with NDB’s information disclosure policy.