



**Guidelines
for the
Financial Governance
and Management of
Investment Projects
Financed by the
Asian Development Bank**

Effective January 2002

Foreword

Financial analysis of ADB projects has been conducted ever since ADB was founded in 1966. To improve the uniformity, approach, and coverage of financial analysis, ADB issued *Guidelines for the Preparation and Presentation of Financial Analysis* in 1989.

ADB has undertaken a review of the *Guidelines* to ensure that they reflect current ADB policies, rules, and procedures, and developments in financial management and analysis practices. In October 1999, a Bank-wide taskforce was appointed under the chairmanship of Francis B. Narayan, Lead Financial Management Specialist. The taskforce was supported by a consultant. The review process, lasting over a year, was carried out in consultation with all divisions and departments.

These revised *Guidelines* are the result of the review. They describe ADB's philosophy, policies, and approach to financial management of executing agencies and financial analysis of investment projects. They have been prepared for the benefit of ADB staff and consultants who evaluate financial management practices of executing agencies or undertake financial analysis of investment projects.

The new title – *Guidelines for the Financial Governance and Management of Investment Projects Financed by ADB* – reflects changes in ADB policies and procedures since 1989. The *Guidelines* has been developed for the web. This hardcopy version is an abridged edition.

ADB deals with countries and sectors that are at different stages of development and that have different resource and staff constraints. Recognizing these constraints, the *Guidelines* need to be applied in a realistic, practical, and flexible manner. ADB financial analysts and financial management specialists have the discretion to determine the extent to which the *Guidelines* will apply in particular circumstances.

The advice, directions and recommendations in the *Guidelines* should not be regarded as a substitute for initiative. ADB staff should always exercise resourcefulness and imagination in reaching sound professional judgments.



MYOUNG-HO SHIN
Vice President (Region West)
November 2001

Key Information on these Guidelines

What are these Guidelines?

The Asian Development Bank (ADB) publishes the *Guidelines for the Financial Governance and Management of Investment Projects Financed by the ADB* (the Guidelines). The Guidelines set out ADB's requirements and procedures for the financial management of projects financed by ADB, for instance, financial reporting, and auditing requirements. They also provide guidance on how to apply these requirements.

When are the Guidelines Updated?

The web-based Guidelines and the downloadable copy of the Guidelines are updated every six months. A list of six-monthly changes to the Guidelines can be accessed online. After reviewing these changes, users may decide to download an up-to-date copy of the Guidelines from website at <http://www.adb.org/documents/guidelines/financial>.

What Recent Changes have been made to the Guidelines?

ADB's 1989 Guidelines were reviewed and re-released in November 2001. The changes to the 2001 Guidelines reflected developments in financial management practices, changes in accounting and auditing standards, and harmonization efforts by the multilateral development banks including ADB.

Who can I ask for help on the Guidelines?

If your question is related to a project or program, please contact the responsible ADB project officer in the first instance. Otherwise, contact:

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Acronyms

The following acronyms are used throughout these Guidelines. A fuller list of common ADB acronyms is accessible at www.adb.org.

ADB	Asian Development Bank
AfDB	African Development Bank
APA	Audited Project Accounts
BCBS	Basle Committee for Banking Supervision (BIS)
BIS	Bank for International Settlements
BTOR	Back-to-Office Report
CAPA	Confederation of Asian and Pacific Accountants
CFAA	Country Financial Accountability Assessment (World Bank)
CFS	Corporate Financial Statements
COSO	Central Operations Service Office
CPA	Certified Public Accountant
DMC	Developing Member Country
DSAA	Country Diagnostic Study of Accounting and Auditing
EA	Executing Agency
EBRD	European Bank for Reconstruction and Development
ED	Exposure Draft
EIRR	Economic Internal Rate of Return
ENPV	Economic Net Present Value
EU	European Union
FARAH	Financial Accounting, Reporting & Auditing Handbook (World Bank)
FASB	Financial Accounting Standards Board (United States)
FCDD	Financial Charges During Development
FI	Financial Institution
FIL	Financial Institution Loan
FIRR	Financial Internal Rate of Return
FNPV	Financial Net Present Value
FOCC	Financial Opportunity Cost of Capital
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
IA	Implementing Agency (also PIU)
IADB	Inter-American Development Bank
IAPC	International Auditing Practices Committee (IFAC)
IAPS	International Auditing Practice Statement (issued by IAPC)
IAS	International Accounting Standard (issued by IASB)
IASB	International Accounting Standards Board (formerly IASC)
IASC	International Accounting Standards Committee

IEG	International Education Guideline (issued by IFAC)
IES	International Education Standard (issued by IFAC)
IFAC	International Federation of Accountants
IFRS	International Financial Reporting Standard (issued by IASB)
IMF	International Monetary Fund
INTOSAI	International Organization of Supreme Audit Institutions
IOSCO	International Organization of Securities Commissions
IPSAS	International Public Sector Accounting Standard (issued by IFAC)
ISA	International Standard on Auditing (issued by IAPC)
MDB	Multilateral Development Bank
MFI	Microfinance Institution
MIGA	Multilateral Investment Guarantee Agency
MOF	Ministry of Finance
MRM	Management Review Meeting
NGO	Nongovernment Organization
OECD	Organization for Economic Cooperation and Development
OIST	Office of Information Systems and Technology
OM	Operations Manual
PAI	Project Administration Instructions
PAU	Project Administration Unit
PCR	Project Completion Report
PIU	Project Implementing Unit (also IA)
PMU	Project Management Unit
PPTA	Project Preparatory Technical Assistance
PSC	Public Sector Committee (IFAC)
REEA	Revenue Earning Executing Agency
RETA	Regional Technical Assistance
ROE	Return on Equity
ROR	Rate of Return
ROSC	Report on the Observance of Standards and Codes (World Bank – IMF)
RRP	Report and Recommendation of the President (ADB)
SAI	Supreme Audit Institution
SFR	Self-Financing Ratio
SI	Sensitivity Indicator
SME	Small or Medium-scale Enterprise
SOE	Statement of Expenditure
SRC	Staff Review Committee
TA	Technical Assistance
TOR	Terms of Reference
UNCTAD	United Nations Conference on Trade and Development
WACC	Weighted Average Cost of Capital
WTO	World Trade Organization

Contents

1. Introduction to the Guidelines

- 1.1. Introduction
 - 1.2. Rationale
 - 1.3. Objectives
 - 1.4. Structure
 - 1.5. Project File
 - 1.6. Guideline Updates
-

2. User Instructions

- 2.1. Overview
 - 2.2. ADB Lending and Technical Assistance
 - 2.3. Applying these Guidelines
 - 2.4. Project Types and General Treatments
 - 2.5. An Overview of Project Processing Steps
 - 2.6. Step 1: Identification and Early Preparation
 - 2.7. Step 2: Loan Preparation
 - 2.8. Step 3: Project Examination
 - 2.9. Step 4: Loan Negotiations
 - 2.10. Step 5: Project Implementation
 - 2.11. Step 6: Project Completion
-

3. Preparing and Appraising Investment Projects

- 3.1. Investment Projects Overview
- 3.2. Possible Investment Projects
 - 3.2.1. Possible Revenue-Earning Projects
 - 3.2.2. Possible Non-Revenue-Earning Projects
- 3.3. Appraisal Checklists
- 3.4. Forecasting
 - 3.4.1. Introduction to Forecasting
 - 3.4.2. Using the COSTAB Model
 - 3.4.3. Preparing Project Cost Estimates
 - 3.4.4. Determining Contingencies
 - 3.4.5. Disbursement Profiles
 - 3.4.6. Preparing Financing Plans
 - 3.4.7. Computing Incremental Project Cash Flows
- 3.5. Preparing Financial Benefit-Cost Analyses
 - 3.5.1. Introduction
 - 3.5.2. Determining the Discount Rate (WACC)
 - 3.5.3. Calculating the Financial IRR and NPV
 - 3.5.4. Undertaking Sensitivity and Risk Analyses
- 3.6. Loan Covenants
 - 3.6.1. Introduction to Loan Covenants
 - 3.6.2. Operating Covenants
 - 3.6.3. Capital Structure Covenants
 - 3.6.4. Liquidity Covenants

3.7. ADB Reports

- 3.7.1. Introduction to ADB Reports
 - 3.7.2. The Project Preparation Report
 - 3.7.3. Report and Recommendation of the President (RRP)
 - 3.7.4. Miscellaneous ADB Reports
-

4. Financial Management of Executing Agencies

- 4.1. Financial Management Overview
 - 4.2. Institutions and Systems
 - 4.2.1. Introduction to Institutions and Systems
 - 4.2.2. Major Institutional Assessments
 - 4.2.3. Governance
 - 4.2.4. Financial Policies
 - 4.2.5. Country Diagnostic Studies of Accounting and Auditing
 - 4.2.6. Executing Agencies (EAs)
 - 4.2.7. Project Objectives
 - 4.2.8. Revenue-Earning Projects
 - 4.2.9. Non-Revenue-Earning Projects
 - 4.3. Financial Analysis
 - 4.3.1. Introduction to Financial Analysis
 - 4.3.2. Financial Analysis Objectives
 - 4.3.3. Linkages with Cost Recovery and Tariffs
 - 4.3.4. Preparing Financial Tables
 - 4.3.5. Determining Fiscal Period Coverage
 - 4.3.6. Forecasting and Financial Projections
 - 4.3.7. Forecasting Assumptions
 - 4.4. Measuring Performance
 - 4.4.1. Introduction to Measuring Performance
 - 4.4.2. Objectives of Measuring Performance
 - 4.4.3. Performance Indicators
 - 4.4.4. Using Benchmarking Indicators
 - 4.4.5. Selecting Indicators and Covenants
 - 4.4.6. Operating Indicators and Covenants
 - 4.4.7. Capital Structure Indicators
 - 4.4.8. Liquidity Indicators
-

5. Reporting and Auditing

- 5.1. Financial Reporting and Auditing Overview
 - 5.2. Accounting Standards and Policies
 - 5.2.1. Introduction
 - 5.2.2. International Accounting Standards (IASs)
 - 5.2.3. ADB Accounting Policy Requirements
-

- 5.3. Financial Reporting
 - 5.3.1. Introduction
 - 5.3.2. Content and Timing of Financial Reporting
 - 5.3.3. Accounting Statements and Financial Reports
 - 5.3.4. Interim Financial Statements and the Project Management Report (PMR)
 - 5.3.5. Audited Project Financial Statements
 - 5.3.6. Annual Financial Statements for a Non-Revenue-Earning Project
 - 5.3.7. Annual Financial Statements for Revenue-Earning Projects and EAs
 - 5.3.8. Supplementary Financial Statements
 - 5.3.9. Designing Financial Reports for Revenue-Earning Projects
 - 5.3.10. Designing Financial Reports for Non-Revenue-Earning Projects
 - 5.3.11. Examples of Model Financial Statements
 - 5.4. Auditing Standards and Auditor Engagement
 - 5.4.1. Introduction
 - 5.4.2. ADB Requirements
 - 5.4.3. Auditing Procedures
 - 5.4.4. Auditor Selection and Appointment
 - 5.4.5. Issues in Auditor Selection
 - 5.4.6. Selecting Auditors
 - 5.4.7. Terms of Reference for an Auditor
 - 5.4.8. Contract or Engagement Letter of Auditor
 - 5.4.9. International Standards on Auditing (ISAs)
 - 5.4.10. Government Auditors
 - 5.5. Reviewing Financial Reports
 - 5.5.1. Introduction
 - 5.5.2. The Review Process: Late or Unacceptable Financial Reports
 - 5.5.3. Compliance With Financial Performance Covenants
 - 5.5.4. Communication with Government Auditors
 - 5.6. Reviewing Auditors' Reports
 - 5.6.1. Introduction
 - 5.6.2. Auditors' Reports and Opinions
 - 5.6.3. Model Audit Opinions
 - 5.6.4. Compliance with Loan Covenants
 - 5.6.5. Compliance with ADB's Requirements
 - 5.6.6. Types of Auditors' Opinion
 - 5.6.7. Materiality
 - 5.6.8. Use of Technical Experts
 - 5.6.9. Statements of Expenditure (SOE) and Imprest Accounts
 - 5.6.10. Reviewing Audit Management Letters
 - 5.6.11. Audit Report Questionnaire
-
- 6. Financial Institutions (FIs)**
 - 6.1. FI Introduction and Overview
 - 6.2. Reviewing FI Financial Management
 - 6.2.1. General Operational Issues
 - 6.2.2. Policy Framework for FIs and FI Loans
 - 6.2.3. Treatment of Interest Rate Distortions
 - 6.2.4. Treatment of Directed-Credit Programs
 - 6.2.5. ADB Policy on Subsidies
 - 6.2.6. Eligibility Criteria for FIs
 - 6.3. FI Investments
 - 6.3.1. Introduction
 - 6.3.2. Investing in FIs
 - 6.3.3. Selecting Participating Institutions
 - 6.3.4. Appraising an FI Investment
 - 6.4. Assessing FI Performance
 - 6.4.1. Introduction
 - 6.4.2. Assessing Microfinance Institutions (MFIs)
 - 6.4.3. Applying the CAMEL Framework
 - 6.4.4. Assessing FI Risks
 - 6.4.5. Determining FI Credit Ratings
 - 6.4.6. Specialized FI Internal Controls
 - 6.5. Appraisal Checklist
 - 6.6. FI Reporting and Auditing Issues
 - 6.6.1. Introduction
 - 6.6.2. FI Financial Reporting
 - 6.6.3. FI Auditing
 - 6.6.4. MFI Financial Reporting and Auditing
-
- 7. Knowledge Management**
 - 7.1. Useful Websites
 - 7.2. Operations Manual (OM)
 - 7.3. Project Administration Instructions (PAIs)
 - 7.4. International Accounting Standards (IASs)
 - 7.5. International Standards on Auditing (ISAs)
 - 7.6. Financial Review Checklist for RRs
 - 7.6.1. Lessons from Past Projects
 - 7.6.2. Project Cost Estimates
 - 7.6.3. Financing Plan (FP)
 - 7.6.4. Executing Agencies and Implementing Agencies
 - 7.6.5. Financial Projections
 - 7.6.6. Financial Analysis
 - 7.6.7. Project Justifications
 - 7.6.8. Accounting and Auditing

- 7.6.9. Procurements and Disbursement Arrangements
- 7.6.10. Finance-Related Risks
- 7.6.11. Assurances
- 7.7. Appraisal Checklist: Non-Revenue-Earning Project
- 7.8. Appraisal Checklist: Revenue-Earning Project
- 7.9. Appraisal Checklist: Private Sector Project
- 7.10. Appraisal Checklist: Financial Institution
- 7.11. Undertaking Sensitivity and Risk Analyses
 - 7.11.1. Step 1: Identify the Key Variables
 - 7.11.2. Steps 2 and 3: Calculate Effects of Changing Variables
 - 7.11.3. Step 4: Analyze Key Variable Changes
 - 7.11.4. Undertaking Risk Analysis
- 7.12. Model Operating Covenants
 - 7.12.1. Rate of Return (see 3.6.2.2)
 - 7.12.2. Self-Financing Ratio (see 3.6.2.3)
 - 7.12.3. General Price Level (see 3.6.2.4)
 - 7.12.4. Operating Ratio (see 3.6.2.5)
 - 7.12.5. Breakeven Covenant (see 3.6.2.6)
- 7.13. Model Capital Structure Covenants
 - 7.13.1. Debt Service Coverage (Version A: Historical orientation) (see 3.6.3.3)
 - 7.13.2. Debt Service Coverage (Version B: Forecast orientation) (see 3.6.3.3)
 - 7.13.3. Debt-Equity Ratio (see 3.6.3.4)
 - 7.13.4. Capital Adequacy Ratio (see 3.6.3.6)
- 7.14. Model Liquidity Covenants
 - 7.14.1. Current Ratio (see 3.6.4.2)
 - 7.14.2. Quick Ratio Covenant (see 3.6.4.3)
 - 7.14.3. Dividend Limitation (see 3.6.4.4)
- 7.15. Commonly Used Ratios
 - 7.15.1. Operating Indicators
 - 7.15.2. Capital Adequacy Indicators
 - 7.15.3. Liquidity Indicators
- 7.16. Model Financial Statements: Service Organization
- 7.17. Model Financial Statements: Manufacturing Organization
- 7.18. Model Terms of Reference for an Auditor
- 7.19. Audit Report Questionnaire
 - 7.19.1. Using the Audit Report Questionnaire
 - 7.19.2. Authenticity, Form, and Timeliness
 - 7.19.3. Audit Opinion
 - 7.19.4. Matters Addressed
 - 7.19.5. Auditor's Opinion and Report
 - 7.19.6. Conclusion and Further Action (if any)

Index

1. Introduction to the Guidelines

1.1. Introduction

1.1.1. The vision of the Asian Development Bank (ADB) is a poverty-free Asia and Pacific region. ADB strives to be an effective partner for its Developing Member Countries (DMCs) in Asia and the Pacific in responding to the challenges of achieving sustained and equitable development, improving the quality of life and eradicating poverty. ADB recognizes that sustained pro-poor growth, social development and good governance are essential for poverty reduction. This vision reflects the belief that unleashing the potential of the poor will substantially contribute to overall growth and enhance the quality of life for all.

1.1.2. The *Guidelines for the Financial Governance and Management of Investment Projects financed by the ADB* describe and explain ADB's policies, procedures and approach to the financial management of the investment projects that it finances, and to ensuring the sustained operations of project entities. They replace ADB's *Guidelines for the Preparation and Presentation of Financial Analysis* that were published in 1989. In addition to including relevant extracts from those Guidelines, they contain current state-of-the-art business processes, and financial management and financial analysis practices adopted by ADB and other multilateral development banks (MDBs) where the latter are in harmony with ADB practices.

1.1.3. The requirements set out in these Guidelines are summarized in the *Handbook for Borrowers on the Financial Governance and Management of Investment Projects financed by the ADB*. The *Handbook* sets out the policies and procedures of ADB with respect to the financial management of projects and EAs. It has been prepared for the benefit of borrowers, EAs, auditors, financial analysts, financial management consultants, and others whose work requires them to be familiar with ADB procedures.

1.1.4. ADB activities are guided by Policies (approved by the ADB Board) and operationalized through the Operations Manual (OM). Implementation is guided through the preparation of various guidelines. Furthermore, project implementation is undertaken following the Project Administration Instructions (PAIs).

1.1.5. These Guidelines address the financial management of investment projects with the exception of those that involve equity participations and venture capital that ADB may assist in the private sector.

1.1.6. The Knowledge Management section of Guidelines (most of which is only available from the web-based Guidelines) includes international standards and practices recognized by ADB that are recommended by international bodies such as the Basle Committee on Banking Supervision (BCBS) of the Bank of International Settlements (BIS) and the International Accounting Standards Board (IASB).

1.1.7. These Guidelines have been developed as a web-based document, with a search facility. There is provision to update these guidelines on a regular basis. The full web-based guidelines can be accessed at www.adb.org/documents/guidelines/financial. This hardcopy version of the Guidelines is an abridged version of the web-based guidelines. It has been developed to improve access to the Guidelines, in particular by ADB borrowers and development partners.

1.2. Rationale

1.2.1. These Guidelines represent one of several initiatives that ADB is taking to support improved operational financial management and financial governance arrangements. The following key factors are driving these initiatives:

- The 1966 ADB Charter requires ADB to take necessary measures to ensure that the proceeds of any loan made, guaranteed or participated in by ADB are used only for the purposes for which the loan was granted and with due attention to considerations of economy and efficiency, and that ADB be guided by sound banking principles in its operations. In accordance, ADB has adopted specific requirements for financial reporting and management by its borrowing countries, including the borrower's executing agencies where applicable.
- The international community, as a whole, is supporting the development of guidelines, standards, and codes in relation to good financial management and governance arrangements. These guidelines, standards, and codes – to varying extents – all involve accounting and auditing arrangements. They include *Principles of Corporate Governance* (OECD); *Code of Good Practices on Fiscal Transparency* (IMF); *Code of Good Practices on Transparency of Monetary and Financial Policies* (IMF); *Implementation of the Objectives and Principles for Securities Regulation Assessment Surveys* (IOSCO); *International Accounting Standards* (IASB); *International Standards on Auditing* (IFAC); and *Draft Banking Supervision Guidelines* (BCBS).
- ADB issued OM 54 (*Governance*) in January 1997. OM 54 identifies four elements of good governance: (i) accountability; (ii) participation; (iii) predictability; and (iv) transparency. In particular, OM 54 states that ADB will focus on: improving public financial management, and promoting transparency. In relation to transparency, ADB will focus on the disclosure of information ... and ... encourage loan project executing

and implementing agencies to produce, or improve the quality of, annual reports and to disseminate these more widely to the public at large.

- In accordance with Section 588 of the United States *Foreign Assistance Act (FAA) 2001*, the US Secretary of the Treasury must certify to the US Congress that ADB is fulfilling the requirements of the FAA. Ten percent of the US Congressional appropriation to ADB may be withheld in the absence of such certification. The certification relates to ADB's efforts regarding procurement reforms and financial management reforms, including: (i) annual project audits by qualified independent auditors; (ii) fraud and corruption investigations; (iii) assessments of recipient countries' financial management capabilities; and (iv) support to improve transparency and financial management in recipient countries.

1.3. Objectives

1.3.1. The Guidelines are intended to deal with issues and techniques throughout the project cycle. It was also decided that they should go beyond financial analysis to include project, and entity, financial management as well as auditing norms. Furthermore, they were to be relevant to both ADB staff and borrowers.

1.3.2. They were prepared with the view that at each stage of ADB's project cycle – which ranges from the identification of a project, followed consecutively by its preparation, appraisal, negotiations, supervision and issuance of a completion report, and, where appropriate, by a post-evaluation – specialized and appropriate financial analysis and management techniques applicable to each sector in which ADB operates must be used to generate financial analysis and management information. This includes, where necessary, the prescription by ADB staff of the design and installation of suitable financial systems by borrowers to assure ADB's management that the project will have reasonable and continuing prospects of financial and economic viability. The latter must be confirmed by timely, accurate financial reporting by borrowers and by timely and rigorous project supervision by financial analysts.

1.3.3. It was also considered that ADB's project portfolio contains a wide array of projects that require specialized financial management and measurement techniques, ranging from public sector revenue-earning operations to non-revenue-earning ones such as in the health and education sectors; from public and private sector financial institutions (FIs) to public utilities and transportation, plus the many specialized elements of agriculture. These financial management techniques include sectoral and project-specific financial analysis, financial performance measurement, design, and operation of institutional financial management systems, including accounting, financial reporting and auditing, supported by the loan management and disbursement techniques.

1.3.4. ADB's financial analysts, and borrowers' financial staff, should have access at any time to guidelines on all these aspects of project, and entity, financial management. The aim, in this regard, is to ensure that each project and entity is financially well maintained, and that borrowers and ADB staff have immediate access to identical information and guidance on using these techniques.

1.3.5. The Guidelines have therefore been designed to provide a complete set of reference and training materials to fulfill these requirements and to set up a knowledge management base to enhance and sustain these necessary professional skills in ADB.

1.3.6. The Guidelines' **overall objective** is to enhance the quality of ADB's portfolio by:

- establishing the norms for financial analysis and financial management of revenue-earning and non-revenue-earning projects for use during the project cycle
- defining the financial management requirements for projects and project entities of borrowers, EAs and other organizations charged with efficient use of funds provided by ADB
- explaining to borrowers the project and institutional financial performance requirements of ADB to achieve successful implementation and the sustainability of ongoing operations
- providing financial knowledge management for the guidance and training of ADB staff and borrowers, and
- providing ready access to ADB's project financial management requirements to all interested parties.

1.3.7. The Guidelines' **specific purpose** is to provide ADB management, staff and borrowers with an understandable, comprehensive and transparent directory of standards of financial analysis, and financial management for the implementation and operation of projects, including:

- a summarized quick reference guide and detailed checklist on project financial management for ADB staff
- a concise reference booklet for the use of borrowers on ADB's requirements for the financial management of projects and project entities, and
- a financial knowledge management base for ADB staff engaged in the project cycle.

1.3.8. The Guidelines aim, in this regard, to provide fundamental parameters, designs and measurement techniques on which to construct the necessary institutional and financial analyses of investment projects and, where appropriate, of EAs. They are designed to achieve consistency in the presentation of findings and recommendations by

ADB staff and borrowers in studies, reports and documents for which these forms of analysis are required.

1.3.9. The advice, directions, and recommendations in these Guidelines should not be regarded as a substitute for initiative on the part of ADB staff, which should always be exercised when situations arise that require resourcefulness, with imaginative and sound professional approaches.

1.4. Structure

1.4.1. In addition to this introduction, the Guidelines comprise six principal parts as follows.

1.4.2. Part 2 – **User Instructions** – describes ADB’s financing methods and how to apply these Guidelines to differing types of projects.

1.4.3. Part 3 – **Preparing and Appraising Investment Projects** – advises on the key features that a borrower and a financial analyst need to know to participate in the preparation, appraisal, implementation, and supervision of an investment project. It includes appraisal checklists and describes the preparation of project cost tables and other forms of financial tables. In addition, a draft form of each principal type of legal covenant (necessary to support financial requirements in legal documents) is provided.

1.4.4. Part 4 – **Financial Management of Executing Agencies** – advises on institutional and systems requirements and relevant financial management considerations. Furthermore, individual sections address key topics such as governance, anticorruption, forms of implementing agencies, financial systems necessary to support investments and to provide sound bases for financial analyses, and the principal techniques of performance measurement.

1.4.5. Part 5 – **Reporting and Auditing** – focuses on ADB’s requirements for financial reporting and auditing of projects, EAs and IAs. It also includes examples of auditors’ opinions, a questionnaire to check the adequacy of financial statements, and draft terms of reference for an auditor.

1.4.6. Part 6 – **Financial Institutions (FIs)** – describes the particular applicability of these guidelines to FIs. Given ADB’s increased involvement with Small and Medium Enterprise lending and microfinance, this part considers the specific application of the Guidelines to financial institutions (FIs). In particular, the part provides guidance on:

(i) reviewing FI financial management; (ii) appraising FIs; (iii) measuring FI performance; and (iv) FI reporting and auditing.

1.4.7. Part 7 – **Knowledge Management** – The 1989 Guidelines provided limited resource materials. The Knowledge Management section of the revised web-based Guidelines includes a wide variety of guidance materials. These include lists and descriptions of accounting and auditing standards, and useful Internet sites. The section also contains best-practice guidance and sector-specific case studies. Space and presentation constraints limit the Knowledge Management Section of the abridged hardcopy Guidelines to essential reference materials.

1.4.8. Please note that, for purposes of these Guidelines, unless otherwise indicated, “Asian Development Bank” means the Asian Development Bank, the Asian Development Fund and the Technical Assistance Special Fund. Also, unless stated otherwise, the requirements for executing agencies also apply to implementing agencies.

1.5. Project File

1.5.1. These Guidelines mention a Project File. This permanent division file should be maintained by the responsible Regional Division. While Regional Division Managers are responsible for ensuring its continued relevance and security, they will normally delegate these duties to the responsible financial analyst.

1.5.2. A Project file must contain all relevant financial information gathered during fact-finding, appraisal, and project supervision (either originals or copies). This information should include details of original and amended financial policy decisions affecting the project and the EA; the assumptions and basic calculations underlying financial analysis, for financial performance indicators, and for the design of financial covenants. The file must also include copies of all computer files that may be used to develop project-specific programs and analyses.

1.6. Guideline Updates

1.6.1. The Guidelines are available as a downloadable hardcopy document, via the Internet (www.adb.org/documents/guidelines/financial), and on CD-ROM.

2. User Instructions

2.1. Overview

2.1.1. This part of the Guidelines begins by describing ADB's operational lending approaches (lending modalities). It then proceeds to describe how these Guidelines apply to different ADB-financed projects, programs and sectors. The resulting classification provides a basis for identifying step-by-step financial management requirements throughout the project cycle. In doing so, by first referring to this part, readers can quickly identify what needs to be done, by whom, and by when.

2.2. ADB Lending and Technical Assistance

2.2.1. ADB makes loans from its Ordinary Capital Resources (OCR) and from the Asian Development Fund (ADF). The ADF is designed to provide loans on concessional terms to Developing Member Countries (DMCs) with low per capita gross national product (GNP) and limited debt repayment capacity. The small size and location of countries may also constitute a criterion for ADF eligibility. The ADF is maintained by regular member contributions. ADB also provides technical assistance from its own resources and from special funds. These include the Technical Assistance Special Fund (TASF) and the Japan Special Fund (JSF).

2.2.2. ADB's charter permits it to make, participate in, or guarantee loans to its DMCs, or their governments, to any of their agencies or political subdivisions, and to public or private enterprises operating within such countries, as well as to international or regional entities concerned with economic development in the region. Loans are made only for projects or programs of high developmental priority.

2.2.3. ADB has four primary types of lending:

- **Project Loans.** Among other things, project lending is aimed at developing energy, agriculture, transport and communications, and other basic infrastructure as well as health, education, and finance.
- **Sector Loans.** OM 5 (*Sector Lending*) sets out ADB policies in relation to sector lending. Sector lending is a form of ADB assistance to a DMC for project-related investments based on considerations relating to a sector or subsector as a whole in the DMC. The purpose of a sector loan is to assist in the development of a specific sector (or subsector) by financing part of an investment in the sector, planned by the DMC. A sector loan is expected to improve sector policies and strengthen institutional capabilities.

- Sector lending is particularly appropriate when a large number of subprojects in the sector (or subsector) are to be financed.
 - Technical assistance may be given for project preparation, sectoral studies, and/or institution building, prior to, or together with, the provision of the sector loan. Sector loans are ordinarily given to well-established institutions with experience in project implementation.
 - Sector loan proceeds will be utilized primarily to meet the foreign exchange costs of subprojects making up the loan. Recurring costs (e.g., fuel and essential supplies) and local currency expenditures or subprojects may also be financed under sector loans in accordance with relevant ADB policies (see OM 11).
 - ADB lending terms are the same for sector and project loans.
- **Program Loans.** OM 6 (*Program Lending*) sets out ADB policies in relation to program lending. Program loans are given by ADB to assist a DMC in developing a sector (or subsector) as a whole and improving a sector's performance through appropriate policy and institutional improvements over the medium to long term. Program loans are given only to DMC governments. Advisory technical assistance may be attached to a program loan to further study unresolved policy issues or to strengthen the capacity of key sector institutions. Although program lending differs from project lending in objectives, the procedural and administrative steps in processing a program loan are generally the same as those for projects.
 - **Private Sector Loans, Equity, and Guarantees.** OM 7 (*Assistance to Private Enterprise*) sets out ADB policies in relation to private sector lending. ADB assistance to the private sector in DMCs is designed to help in resource mobilization and more efficient use of investment funds for economic development. ADB support for the private sector in DMCs aims to: (i) create a favorable environment for the private sector in DMCs; (ii) strengthen financial institutions and capital markets; (iii) assist in privatizing public sector enterprises; (iv) catalyze external and domestic resource flows to infrastructure projects utilizing build-own-operate (BOO) / build-own-transfer (BOT) modalities; (v) invest in selected, productive private enterprise in accordance with sound banking principles; and (vi) assist economically attractive and financially sound private sector projects that require ADB financial support to complete the financing plan or to provide comfort to other lenders and investors. ADB assistance may be provided in one or more of the following forms: (i) loans to financial institutions to finance small- and medium-scale private enterprises; (ii) direct loans to medium- and large-scale private enterprises; (iii) equity investments in private enterprises including private financial institutions; (iv) underwriting of issues of equity or debt instruments on national or international securities markets; (v) assistance to infrastructure projects; (vi) equity investments; and (vii) guarantees of the debt-service obligations of private enterprises with or without counter-guarantee by the DMC government.

2.2.4. ADB's Technical Assistance (TA) is classified into four development activities: (i) project preparatory technical assistance (PPTA) for assisting in the preparation of one or more projects, a program loan, or a sector loan, for financing by ADB and other external sources; (ii) project implementation technical assistance for assisting in the implementation, operation, and management of an ADB-financed project; (iii) advisory technical assistance for financing institution-building; plan-formulation; and sector-, policy-, and issues-oriented studies; and (iv) regional technical assistance (RETA), covering more than one DMC. OM 18 (*Technical Assistance*) sets out ADB policies in relation to technical assistance.

2.2.5. ADB encourages cofinancing. The cofinancing strategy comprises: (i) maximizing the amount of cofinancing from other official funding agencies, and (ii) increasing the flow of private capital through cofinancing to DMCs. The purpose of this strategy is to maximize the impact of ADB's assistance in the development of its DMCs and to mobilize additional resources for such development. Cofinancing funds come from (i) official funding agencies; (ii) export credit agencies; and (iii) commercial finance institutions.

2.3. Applying these Guidelines

2.3.1. The provisions of these Guidelines apply to investment projects and project executing and implementing agencies. Consequently, they mainly relate to identifiable investment activities that have been undertaken with support from project, sector, and private sector loans. However, the provisions of these Guidelines will also apply where program loans include discrete, identifiable investment components.

2.3.2. The revised Guidelines apply to private sector operations (PSO). In this respect, the Guidelines will be strengthened in future updates to take account of developments in this area and to reflect the guidance provided in the Credit Risk Manual that the Private Sector Group (PSG) is preparing.

2.3.3. These Guidelines are also relevant to PPTAs. PPTAs are designed and implemented prior to the beginning of a program or project. These guidelines **strongly recommend** that PPTA resources be used (in part) to appraise the financial aspects of projects and project executing agencies and, where necessary, to develop sufficient financial management capacity to implement and manage the project.

2.4. Project Types and General Treatments

2.4.1. These Guidelines effectively classify projects, executing agencies, and implementing agencies into two distinct groups: (i) non-revenue-earning; and (ii) revenue-earning (including public sector, private sector and financial institutions). ADB, together with other international financial institutions (IFIs), including the other multilateral development banks (MDBs), is actively encouraging borrowers and EAs to adopt uniform standards of accounting and financial reporting. However, some time will be required to achieve a high level of uniformity.

2.4.2. In the case of non-revenue-earning EAs in the public sector, ADB expects sound financial policies, adequate accounting records, proper internal control systems, timely reporting to management, and sound and timely auditing.

Financial Analyst Discretion to Agree Accounting Standards and Reporting Arrangements

2.4.3. ADB requires revenue-earning EAs to follow national accounting standards and practices, with the eventual objective of moving towards IAS-compliant accounting policies, as capacity allows and the situation warrants. ADB recognizes that, given the varying levels of DMC development, it will take time to improve financial reporting practices to international standards and best practices.

With regards to this, financial analysts should determine the extent to which IASs are used as the basis for reporting during project processing, taking into account the country's capacity and capability.

In exercising this discretion, financial analysts are responsible for ensuring that ADB's funds are utilized for the purpose intended and in an effective and efficient manner.

2.4.4. The following table illustrates these categorizations and associated treatments:

Sector:	State-Owned (Public Sector)		Private Sector
Type of Project, Executing Agency or Implementing Agency:	Non-Revenue-Earning	Revenue-Earning	Private Sector
		Financial Institutions	
Broad Guidelines Approach and Requirements:	<ul style="list-style-type: none"> • Sound financial policies • Adequate accounting records • Proper internal control systems • Timely reporting to management • Sound and timely auditing • Gradual improvements in financial reporting as capacity allows 	<ul style="list-style-type: none"> • Move towards best practice private sector management, internal control and governance arrangements • Ensure that ongoing operations are sustainable • Compliance with National Accounting Standards • Move towards reporting in accordance with International Accounting Standards (IASs) 	

2.5. An Overview of Project Processing Steps

2.5.1. Once a project is identified by agreement between a government and ADB, it is processed and implemented. The various steps from project identification to completion comprise what is known as the project cycle. Further details and indicative timetables for the project cycle are available from www.adb.org/Projects/cycle.asp. The steps in a typical ADB-financed project include project identification; fact-finding to establish project feasibility; appraisal to assess project soundness and viability; consideration and approval by ADB's Board of Directors; and finally, project implementation, within the guiding framework of ADB's loan administration procedures. Many ADB-financed projects are also subject to operations evaluation when completed.

2.5.2 The first step of project identification is generally undertaken during the preparation of the Country Strategy and Program (CSP). CSPs are usually prepared every five years for each DMC and are updated annually, in consultation with member governments.

2.5.3. In appraising a project, its technical, financial, economic, social, environmental, production, marketing, and management aspects, and loan conditionalities are closely examined. This helps to pinpoint specific steps necessary to ensure its smooth and efficient implementation and operation. ADB loans are often channeled through

existing agencies; government departments; semi-government and public enterprises; and to the private sector, often through national development banks.

2.5.4. Loan approval by ADB does not mean that the amount of the loan is immediately transferred to the borrower in a lump sum. The loan is disbursed to meet expenditures under the loan agreement, as and when they are incurred. Specific procedures are laid down in the loan documents and in ADB's Loan Disbursement Handbook.

2.5.5. Normally, the loan documents allow 90 days for the loan to become effective. The preparatory work for construction (including recruitment of consultants, preparation of tender documents and detailed designs, procurement of equipment, and selection of contractors for construction) may take from 12 to 18 months or longer. Usually, these activities cannot begin until the loan becomes effective. However, certain preliminary steps in the procurement of goods and selection of consultants can begin at an earlier stage to speed up project implementation. Implementation time generally ranges from two to five years and depends on the type and nature of the project. The progress of project implementation is assessed by ADB review missions, which visit the project about twice a year throughout the implementation period.

2.6. Step 1: Identification and Early Preparation

2.6.1. When compared with the needs of its borrowing members, ADB resources are limited. Consequently, projects are selected carefully. Before any project is identified for ADB financing, ADB staff review a country's economy, particularly its national and sectoral development programs, and determine the prospects for its success. Country programming missions visit DMCs regularly to discuss topics of mutual interest with government officials and select suitable projects for ADB assistance.

2.6.2. Since the levels of economic growth, and the priorities for development vary from one DMC to another, ADB tries to select those projects which will most effectively contribute to the economic and social development of the country concerned, in conformity with the country and ADB strategies.

2.6.3. Once it is confirmed that the project investment is justified, ADB evaluates the project. In some cases, especially in the smaller and less-developed DMCs, project identification may require the help of outside experts. If so, ADB can provide technical assistance to a country to help it identify and prepare a project for possible ADB financing. The following table identifies relevant activities during project identification and early project preparation.

Activity	Responsibility ¹		Project Type ²				
	Consultants and/ or Financial Analyst	Executing Agency	General	Non-Revenue-Earning	Revenue-Earning	Private Sector	Financial Institution
• If project is not identified in the Country Strategy and Program (CSP), then Concept Paper is prepared for Management approval	✓
• Possible project types	3.2	...	...	...	...
• Begin preparing forecasts	✓	✓	3.4.1	...	...	...	...
• Inform borrowers of ADB accounting and auditing requirements	✓	...	5.3	...	...	...	...
• Undertake preliminary consideration of EA/IA financial policies and financial management systems (OM 35 [Identify unacceptable arrangements])	✓	...	4.2.1, 4.2.4, 4.2.4.4, 4.2.6	4.2.9	4.2.8	4.2.8	6.2, 6.3
• Review accounting and auditing arrangements	✓	...	5.2, 5.3, 5.4	...	...	...	...
• Review earlier ADB reviews of, and World Bank certification of, Executing and Implementing Agencies	✓	...	4.1	...	...	...	...
• Consider the information requirements to support financial analyses	✓	...	4.3	...	...	...	6.4
• Where available, review Country Diagnostic Study of Accounting and Auditing (DSAA)	✓	...	4.2.5	...	...	...	...
• Identify consulting requirements for institutional strengthening	✓	...	2.3, 4.2.2	...	...	...	...
• Financial Analyst's responsibilities during project appraisal	✓	...	4.2.4.2	...	...	...	...
• Project Preparation Report	✓	...	3.7.2	...	...	...	...
• Ensure that PPTA TORs reflect financial management needs	✓	...	3.7.2	...	...	...	...

¹ A "✓" identifies who has the key responsibility each step. "..." indicates "not applicable".

² The section number where the requirements and related guidance can be located is provided in the table. "..." indicates that no information is available, or that the general requirements apply to the project type.

2.7. Step 2: Loan Preparation

2.7.1. Loan preparation involves justifying the technical feasibility, economic viability and financial soundness of a project. This preparation phase can be undertaken by the government or any other agency, but ADB can also assist by providing technical assistance grants to the government. Using the grants, ADB hires consultants to undertake a project feasibility study. The consultants' work is closely monitored by ADB staff and the draft final report is reviewed at a meeting attended by representatives of the government, ADB and the consultants. The following table identifies relevant activities during loan preparation.

Activity	Responsibility ³		Project Type ⁴				
	Consultants and/or Financial Analyst	Executing Agency	General (All Projects)	Non-Revenue-Earning	Revenue-Earning	Private Sector	Financial Institution
(i) Consultants' Stage							
• Obtain copies of annual financial statements for five previous financial years (if possible)	✓	5.3.7	5.3.7	5.3.7
• Prepare Project Cost Estimate Table	✓	✓	3.4.3	...	...	...	6.4
• Prepare Financing Plan	✓	✓	3.4.6	...	...	...	...
• Forecast annual net cash flows	✓	✓	3.4.7	...	...	...	...
• Prepare financial cost-benefit analysis	✓	...	3.5	...	...	...	...
• Undertake sensitivity and risk analysis	✓	...	3.5.4	...	...	...	...
• Review EA/IA financial policies and financial management systems. Identify deficiencies and corrective actions (OM 35)	✓	...	4.2.1, 4.2.4, 4.2.4.4, 4.2.6	4.2.9	4.2.8	4.2.8	6.3, 6.4
• Review financial objectives and cost-recovery systems	✓	...	4.3.1–4.3.3	...	...	...	...
• Prepare financial tables (forecast financial statements)	✓	✓	4.3.4–4.3.7	...	...	...	...
• Identify key financial objectives and select appropriate performance measurement indicators and covenants	✓	4.4	4.4	6.4

³ A "✓" identifies who has the key responsibility each step. "..." indicates "not applicable".

⁴ The section number where the requirements and related guidance can be located is provided in the table. "..." indicates that no information is available, or that the general requirements apply to the project type.

Activity	Responsibility ³		Project Type ⁴				
	Consultants and/or Financial Analyst	Executing Agency	General (All Projects)	Non-Revenue-Earning	Revenue-Earning	Private Sector	Financial Institution
• Consider governance aspects (OM 54)	✓	...	4.2.3	...	...	...	...
• Determine loan covenants (Preliminary)	✓	✓	3.6,	...	...	...	6.4
• Review accounting policies (OM 43 and GP 43)	✓	✓	5.2.3	...	...	...	...
• Determine financial reporting requirements and timetable (Preliminary) (OM 43 and GP 43)	✓	✓	5.3	...	...	...	6.6.1, 6.6.2
• Determine auditing arrangements (Preliminary) (OM 43 and GP 43)	✓	✓	5.3, 5.4	...	...	...	6.6.3
• Financial Analyst's responsibilities during project appraisal	✓	...	4.2.4.2	...	...	...	...
• Complete Appraisal Checklist	✓	...	3.3	7.7	7.8	7.9	7.10
• Prepare First Draft of RRP	✓	...	3.7.3	...	...	...	...
• Review RRP (Financial Checklist)	✓	...	7.6	...	...	...	...
(ii) Preparatory Reports							
• Supervisory Actions (PAI 1.02)	✓	...	3.7.4.1	...	...	...	...
• Preparation of Cost Estimates	✓	...	3.7.4.1	...	...	...	...
• Project Inception Mission (PAI 6.02)	✓	...	3.7.4.1	...	...	...	...
(iii) Project Budget Briefing							

2.8. Step 3: Project Examination

2.8.1. Project feasibility, as presented in the consultants' report, is then examined by ADB, first through a fact-finding mission and then through an appraisal mission. The mission teams, in consultation with the government, examine the project's technical, financial, economic, environmental and management aspects and potential social impact. Loan terms and conditions are discussed. Following the examination in the field, the appraisal mission team prepares a report and draws up a draft loan agreement for negotiation. The following table identifies relevant activities during project examination.

³ A "✓" identifies who has the key responsibility each step. "..." indicates "not applicable".

⁴ The section number where the requirements and related guidance can be located is provided in the table. "..." indicates that no information is available, or that the general requirements apply to the project type.

Activity	Responsibility ⁵		Project Type ⁶				
	Consultants and/or Financial Analyst	Executing Agency	General (All Projects)	Non-Revenue-Earning	Revenue-Earning	Private Sector	Financial Institution
(i) Fact-finding Mission							
<ul style="list-style-type: none"> Review EA/IA financial policies financial management systems, and auditing arrangements and identify deficiencies and corrective actions (OM 35, OM 43 and GP 43) Review Appraisal Checklist Update RRP Review RRP (Financial Checklist) Financial Analyst's responsibilities during project appraisal Review Mission Report 	<ul style="list-style-type: none"> ✓ ✓ ✓ ✓ ✓ ✓ 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 4.2.1, 4.2.4, 4.2.4.4, 4.2.6, 5.3 3.3 3.7.3 7.6 4.2.4.2 3.7.4.1 	<ul style="list-style-type: none"> 4.2.9 7.7 	<ul style="list-style-type: none"> 4.2.8 7.8 	<ul style="list-style-type: none"> 4.2.8 7.9 	<ul style="list-style-type: none"> ... 7.10
(ii) Management Review Meeting							
(iii) Appraisal Mission							
<ul style="list-style-type: none"> Review EA/IA financial policies and financial management systems and identify deficiencies and corrective actions (OM 35, OM 43 and GP 43) Review Appraisal Checklist Update Project Cost Estimates Update RRP Review RRP (Financial Checklist) Financial Analyst's responsibilities during project appraisal 	<ul style="list-style-type: none"> ✓ ✓ ✓ ✓ ✓ ✓ 	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> 4.2.1, 4.2.4, 4.2.4.4, 5.3 3.3 3.4.3 3.7.3 7.6 4.2.4.2 	<ul style="list-style-type: none"> ... 7.7 	<ul style="list-style-type: none"> ... 7.8 	<ul style="list-style-type: none"> ... 7.9 	<ul style="list-style-type: none"> ... 7.10
(iv) Staff Review Committee (SRC)							
(v) Board Consideration							

⁵ A "✓" identifies who has the key responsibility each step. "..." indicates "not applicable".

⁶ The section number where the requirements and related guidance can be located is provided in the table. "..." indicates that no information is available, or that the general requirements apply to the project type.

2.9. Step 4: Loan Negotiations

2.9.1. After negotiations with the government, the loan proposal is submitted to ADB's Board of Directors for approval. The loan agreement is then signed by the ADB President and representatives of the government and the executing agency. The loan takes effect once certain conditions are met.

2.10. Step 5: Project Implementation

2.10.1. The project is implemented by the EA according to the agreed schedule and procedures. Project consultants are recruited, the detailed engineering design and bidding documents are prepared, machinery and equipment are procured, and civil works are constructed and installed. ADB's Regional Divisions review the implementation in close coordination with the borrower and the EAs. ADB disburses the loan for approved expenditures, as provided in the loan agreement. The following table identifies relevant activities during project implementation.

Activity	Responsibility ⁷		Project Type ⁸				
	Consultants or Financial Analyst	Executing Agency	General (All Projects)	Non-Revenue Earning	Revenue-Earning	Private Sector	Financial Institution
• Update Project Cost Estimates	✓	✓	3.4.3	...	...	...	...
• Review financial reports (PAI 5.09)	✓	...	5.5	...	...	...	...
• Review auditors' reports (PAI 5.09)	✓	...	5.6	...	...	...	...
(I) Supervision Reports							
• Review Mission Report (PAI 6.02)	✓	...	3.7.4.1	...	...	...	...
• Loan Administration Mission Report (PAI 6.03)	✓	...	3.7.4.1	...	...	...	...
• Supervision Report (PAI 6.02)	✓	...	3.7.4.2	...	...	...	...
• Progress Reporting (PAI 5.10)	✓	...	3.7.4.1	...	...	...	...
• Provision of local-cost financing by Borrower (PAI 5.08)	✓	...	3.7.4.1	...	...	...	...
• Project administration review (PAI 6.06)	✓	...	3.7.4.1	...	...	...	...
• Examination of audited accounts: APAs and CFSS (PAI 5.09)	✓	...	3.7.4.1	...	...	...	...
• Staff responsibilities for day-to-day loan administration (PAI 1.02)	✓	...	3.7.4.1	...	...	...	...

⁷ A "✓" identifies who has the key responsibility each step. "..." indicates "not applicable".

⁸ The section number where the requirements and related guidance can be located is provided in the table. "..." indicates that no information is available, or that the general requirements apply to the project type.

2.11. Step 6: Project Completion

2.11.1. After the project facilities are completed and commissioned, ADB prepares a project completion report (PCR) to document the implementation experience. ADB's Operations Evaluation Department evaluates projects on a selective basis. It prepares project performance audit reports that assess project formulation and implementation; economic, financial, and social benefits; and environmental impacts.

Activity	Responsibility ^a		Project Type ^b				
	Consultants or Financial Analyst	Executing Agency	General (All Projects)	Non-Revenue-Earning	Revenue-Earning	Private Sector	Financial Institution
(i) Completion Reports							
• Project Completion Report (PAI 6.07)	✓	...	3.7.4.1, 3.7.4.2	...	...	...	...

^a A "✓" identifies who has the key responsibility each step. "..." indicates "not applicable".

^b The section number where the requirements and related guidance can be located is provided in the table. "..." indicates that no information is available, or that the general requirements apply to the project type.

3. Preparing and Appraising Investment Projects

3.1. Investment Projects Overview

3.1.1. ADB appraises (reviews) investment projects to ensure that they are technically, financially and economically viable. It considers: (i) national, sectoral, and local needs for the investment; (ii) economic and financial justifications for the proposed project; (iii) sustainability; (iv) the extent to which the project contributes to human and technological advancement; (v) good governance aspects; and (vi) whether ADB will be fulfilling its own responsibilities as set out in the ADB Charter.

3.1.2. Investment projects are managed and implemented by EAs and IAs. Together with the parts on Financial Management and Reporting and Auditing, this part aims to provide financial analysts with comprehensive guidance on preparing and appraising investment projects, based on the ADB Operations Manual and related guidance documents. In addition to this overview, this part has six sections:

- | | |
|---|--|
| 3.2 Possible Investment Projects | This section discusses potential revenue and non-revenue-earning projects. |
| 3.3 Appraisal Checklists | General appraisal checklists are provided in the Knowledge Management section of these Guidelines. This section discusses the application of these checklists. |
| 3.4 Forecasting | This section describes ADB's forecasting requirements. It focuses on the preparation of Project Cost Estimate Tables and financial projections. |
| 3.5 Preparing Financial Benefit-Cost Analyses | ADB requires that projects be subjected to financial benefit-cost analyses. This section takes a step-by-step approach to describing how these analyses should be conducted. |
| 3.6 Loan Covenants | The covenants in ADB loan agreements are designed to support the achievement of enterprise and project objectives. This section discusses the applicability of covenants. |

3.7 ADB Reports

This section describes the purpose and contents of the various reports that are relevant to investment projects.

3.2. Possible Investment Projects

3.2.1. ADB maintains a three-year rolling program of investment projects. This program forms a guide to the types of revenue-earning and non-revenue-earning projects and sectors / subsectors that are likely to be involved.

3.2.2. The following lists of revenue-earning and non-revenue-earning projects indicate the sectors and subsectors and the financial management expertise that the Regional Departments may require over time. The lists exclude Technical Assistance. The lists are updated as needed to reflect changes in the rolling program.

3.2.1. Possible Revenue-Earning Projects

3.2.1.1. The following indicative list of revenue-earning sectors, subsectors and project activities is intended as a guide to the financial expertise that is likely to be needed during project identification, preparation, appraisal and supervision. The list indicates the sectoral and subsectoral experience likely to be needed from financial analysts.

- **Sectors:** Airports, Gas, Harbors, Housing Finance*, Nonbank Financial Institutions*, Plantations, Pumped Storage, Railways, Rural Savings and Credit Unions Development*, Sanitation, Waste Management, Wastewater Treatment, Water Conservancy, Water Supply and Sanitation.
- **Subsectors:** Buses, River Erosion Prevention, Toll Roads.
- **Projects:** Electric Power, Flood Management, Grain Productivity, Irrigation, Microfinance*, Road Transport, Rural Electrification, Rural Finance*, SME Development*, Urban Development (e.g., water supply), Urban SME Business Development*, Water Resources.

3.2.2. Possible Non-Revenue-Earning Projects

3.2.2.1. The following list of possible non-revenue-earning projects is intended as a guide to the expertise that is likely to be needed. Advice from financial analysts may be sought in relation to the cost-recovery aspects and efficiency improvement aspects of some of these projects.

* Finance and Banking sectors

- **Sectors:** Accountability Improvement, Economic Corridors Development, Ecosystem Management, Environmental Improvement, Environmental Protection (acid rain), Financial Sector, Governance and Legal Reforms, Information Technology Development, Insurance and Pension Funds Development, Nutritional Improvement/Poverty Alleviation, Public Administration, Public Works Development Program, Rural Development, Rural Employment, Rural Employment and Income Generation, Rural Renewable Energy, Social Action Program, Social Security Reform, Soil Conservation, Women and Children Protection.
- **Subsectors:** Education Skills Transfer, Judicial and Legal Reform, Labor Retraining, Land Administration, Teacher Training, Women in Development.
- **Projects:** Agriculture Development, Basic Education, Civil Service Reform, Coastal Resources Management, Ecotourism, Health Services, Inter-regional System Improvements, Natural Resources Management, Nonformal Education, Post-Secondary Education, Rural Infrastructure, Rural Poverty Reduction, Rural Productivity Enhancement, Social Sector Development, Urban Development (e.g., drainage), Urban Environment.

3.3. Appraisal Checklists

3.3.1. The Knowledge Management section provides general checklists for the financial appraisal of a:

- Non-revenue-earning project (see section 7.7)
- Revenue-earning project (see section 7.8)
- Private sector project (see section 7.9), and
- Financial Institution (FI) (see section 7.10).

3.3.2. These checklists are general. Care should be taken in their application. Every project will have differing objectives, sectoral and institutional structure, management, and design and implementation approaches.

3.3.3. Revenue-earning projects may be in the public sector or in the private sector. For the purposes of these checklists, private sector projects are defined as projects financed by entrepreneurs, in the form of private and public companies. ADB supports private sector projects with the intention of enhancing a country's economic performance by the production of goods and services, particularly for export, but also for local consumption.

3.3.4. Financial Institutions (FIs) range from large-scale apex institutions that service multiple FIs, to industrial and agricultural FIs and microfinance organizations. Particular consideration should be given to an FI's characteristics when applying the general checklist.

3.4. Forecasting

3.4.1. Introduction to Forecasting

3.4.1.1. ADB needs reasonable forecasts of expenses, revenues, cash flows and other financial items that are necessary to ensure that projects are delivered in a timely and effective manner. But as forecasting is not an exact science, ADB requires its staff to work alongside their counterparts in borrowers' agencies during project identification, preparation and appraisal to ensure that all reasonable efforts have been made to develop meaningful forecasts. These forecasts should, ideally, be prepared by the borrower's agencies. However, where forecasts are prepared by ADB staff, or PPTA consultants, it is essential that the borrower's agencies take ownership of these forecasts.

3.4.1.2. ADB requires EAs to provide updated forecasts after loan signing and the start of project implementation. These will be updated forecasts-to-completion or, in the case of revenue-earning projects, updated forecasts for a specified period. The updated forecasts provide early warnings of project problems so that timely corrective actions can be taken. In the case of a revenue-earning project, the financial analyst will determine the period during which EAs will be required to provide updated forecasts. This requirement will be specified in the loan agreement. The exact period is at the discretion of the financial analyst. This will normally be from between three to five years following project completion (i.e., normally a total period of ten years).

3.4.1.3. During project preparation and appraisal, staff should carefully examine project cost, revenue and cash flow estimates. The Project Officer is responsible for ensuring that these base costs are realistic. The financial analyst and the project engineer are responsible for examining the cost estimates in general. They are particularly responsible for ensuring that: (i) the items included in the base cost are realistic; and (ii) where items have not been included, this has been for sound technical, financial or economic reasons.

3.4.1.4. The remainder of this section discusses: (i) the use of the COSTAB model; (ii) the principal components of cost estimates and how these should be developed; (iii) physical, price contingencies and risk contingencies; and (iv) disbursement profiles. The section concludes with outline of a typical Project Cost Table and Financing Plan.

3.4.2. Using the COSTAB Model

3.4.2.1. The COSTAB (Standard Project Cost Table) computer model can assist analysts to apply this Section of the Guidelines. It can be used to generate cost tables, financing plans, and disbursement tables. COSTAB can also compute physical and price

contingencies, domestic and foreign interest charges, and financial charges during development (FCDD).

3.4.2.2. The Office of Information Systems and Technology (OIST) will provide the software, user manuals, and assistance to use the system, as necessary.

3.4.3. Preparing Project Cost Estimates

3.4.3.1. A Project Cost Estimates Table, that includes all project cost elements, should be prepared at the PPTA stage. The Project Cost Estimates Table should be designed so that it (i) provides an understanding of the principal project cost components during appraisal, and (ii) provides useful information for project cost control purposes during implementation. The information provided by the Project Cost Estimate Table is considered at project appraisal and during implementation by the borrower, the EA and ADB.

3.4.3.2. The Project Cost Estimates Table outline that is provided below is suitable for the main body of text in an RRP. Each line item can be broken down to provide additional details. The COSTAB software enables different levels of project cost detail to be presented to meet reporting needs (for instance, for the main text or the appendix of an RRP).

3.4.3.3. The outline includes all standard loan disbursement categories.

Std Code		Local Costs	% of Total	Foreign costs	% of Total	Total	% of Total
	COMPONENTS ***						
03	Civil Works	0.00	0	0.00	0	0.00	0
06	Survey, Investigation, Design, Mapping	0.00	0	0.00	0	0.00	
09	Research and Development (Extension and Demonstration)	0.00	0	0.00	0	0.00	
12	Institutional Development and Strengthening	0.00	0	0.00	0	0.00	
15	Equipment, Vehicles and Furniture (Purchase and Maintenance)	0.00	0	0.00	0	0.00	0
18	Materials	0.00	0	0.00	0	0.00	
21	Consulting Services	0.00	0	0.00	0	0.00	0
24	Trainings and Fellowships	0.00	0	0.00	0	0.00	
27	Operations and Maintenance	0.00	0	0.00	0	0.00	
30	Financing of Nongovernment Organizations (NGOs)	0.00	0	0.00	0	0.00	
...	Implementation Assistance	0.00	0	0.00	0	0.00	0
...	Land 0.00	0	0.00	0	0.00	0	
...	Capital Goods	0.00	0	0.00	0	0.00	0
...	Incremental Administrative Costs	0.00	0	0.00	0	0.00	0
...	Initial Working Capital	0.00	0	0.00	0	0.00	0
...	Taxes and Duties	0.00	0	0.00	0	0.00	0
	Base Costs as at ..(date)..	0.00	0	0.00	0	0.00	0
	Contingencies ***						
87	Physical	0.00	0	0.00	0	0.00	0
84	Price	0.00	0	0.00	0	0.00	0
81	Other (Identify)	0.00	0	0.00	0	0.00	0
	SUB-TOTAL	0.00	0	0.00	0	0.00	0
	Financing Charges During Development***						
66	Interest	0.00	0	0.00	0	0.00	0
69	Other	0.00	0	0.00	0	0.00	0
	0.00	0	0.00	0	0.00	0	
	TOTAL PROJECT COST AND FINANCING REQUIRED	0.00	0	0.00	0	0.00	0

*** Footnotes to be used as necessary, particularly for contingencies' explanations

3.4.3.4. ADB does not finance the costs of land, rights-of-way, and taxes and duties, even though these costs are included in the base costs of a project.

3.4.3.5. An EA will normally have designers (engineers, architects, agriculturalists, economists, etc). These designers will prepare the physical aspects and operational features of the project. They are also responsible for ascertaining project costs, economic benefits and for designing the program's development and operations. These designers may be staff of the borrower (including the EA), foreign consultants, local consultants, or some combination of these three. Design costs may be met from a technical assistance loan, or from the borrowers' own resources. The design costs will normally be incurred prior to project implementation, but there will be circumstances where the final design work is ongoing during implementation and may form part of project costs.

3.4.3.6. The financial analyst's role may range from satisfying themselves at appraisal that the methods, data and assumptions used to determine project costs are credible and justifiable, to assisting to assemble the data prepared by the designers to compile cost estimates for the Financing Plan.

3.4.3.7. The base project cost estimate represents the appraisal mission's (including the financial analyst's) best judgment of estimated project costs at a specified date, assuming that:

- the qualities and quantities of works, goods and services and prices of inputs and outputs relevant to the project have been developed as accurately as possible, using wherever feasible, known factors which will not change during implementation, and
- the project is to be implemented precisely as planned.

3.4.3.8. These assumptions that support the base cost estimates are made in order to provide a firm basis of costs at one point in time, particularly to determine the total amount of required financing. The RRP should provide these assumptions.

3.4.3.1. Local Costs

3.4.3.1.1. The Borrower is expected to cover local project costs since ADB normally finances the foreign exchange component. In special circumstances ADB finances a portion of local costs (see OM 11: *Lending Foreign Exchange for Local Expenditures on Projects*). For ADF-funded projects, the lending policies of the respective ADF replenishment provide a list of conditions that need to be met for projects to qualify for local cost financing.

3.4.3.1.2. The calculation of the amount of eligible local cost financing must reflect the requirement that ADB does not finance taxes. The amount of local taxes imposed on goods and services will vary within components and, when determining the estimated amounts of taxes, the financial analyst should also have regard to the need to provide a practical means of disbursing against local costs. This requirement means that the financial analyst should agree with the borrower and the appraisal team on the estimated amount of taxes (expressed as a percentage of total cost) likely to be levied by the government and included in a local cost component that is eligible for reimbursement.

3.4.3.1.3. Determining this percentage for goods and services should be relatively simple. For example, if VAT is levied at 15 percent, this percentage should be excluded from the estimated cost of the goods or services. This calculation may be complicated where the EA may be entitled to recover VAT from the yield of VAT levied on final products or services. In such cases, the analyst should take this factor into account.

3.4.3.1.4. Where ADB agrees to finance salaries and wages, these will likely include tax payments to government for income tax, health, social security, forms of unemployment insurance, and other similar levies. The estimated amounts of these should be established as percentages and excluded from the amounts of salaries and wages to be financed by ADB.

3.4.3.1.5. Once ADB and the borrower have reached agreement on these percentage deductions, they should be reflected in the categories for disbursements in the legal documents. This will enable disbursement claims by the borrower/EA to be appropriately adjusted, where necessary, by the requisite percentages.

3.4.3.1.6. Borrower/EAs should be encouraged to make claims net of taxes (as represented by the agreed percentages). The disbursement process will be expedited if ADB does not have to make the appropriate adjustments.

3.4.3.1.7. Auditors should be informed of these percentage adjustments (to eliminate taxes from disbursement claims). This is so they can ensure that claims are legitimate – particularly when Statements of Expenditures (SOEs) are used.

3.4.3.2. Foreign Costs

3.4.3.2.1. As with local costs, ADB does not finance taxes and duties paid by a borrower/EA on foreign costs. For direct purchases these are relatively easy to identify as line items in quotations, bids, and invoices.

3.4.3.2.2. Where commodities are acquired indirectly, such as petroleum products included in manufacture and various processes, it may be necessary to determine (as for

local costs above) an appropriate percentage that should be deducted from the total costs of the goods or services received by the borrower/EA. The latter adjustment should be reflected in the percentage of goods to be financed for the particular categories of disbursements in the legal documents. OM 10 – *Financing Indirect Foreign Exchange Costs of Projects* – provides further details on indirect foreign exchange costs.

3.4.3.3. Date of the Base Cost Estimate

3.4.3.3.1. The Date of the Base Cost Estimate should be specified in the RRP and should not be earlier than six months prior to presentation of the loan for the project to the ADB Board for approval. If this period elapses prior to Board presentation, the base cost should be revised by indexation up to a period of 12 months from the date specified above. A reappraisal of costs should be made if the presentation is to be made more than 12 months after the specified date.

3.4.3.3.2. The reliability of base cost estimates will reflect the amount of detailed preparation work that has been undertaken before appraisal. For example, for a large reservoir, or a major roll-on/roll-off harbor facility, the detailed engineering may be completed before appraisal and the base cost estimate will have a correspondingly high degree of reliability.

3.4.3.3.3. This applies to projects involving purchases of equipment that is of standard design, in quantities that are precisely specified, such as telecommunications expansions. Some projects may be appraised when there is much less detailed information available about designs or quantities. In health care projects, for example, the exact locations and the designs of clinics may not be known at the time of appraisal. The base cost estimates in such cases may have been made by setting a target population to be served, allocating the building space per 1,000 according to local norms, and estimating costs on a price-per-square-meter basis obtained from actual costs of similar local clinics.

3.4.3.3.4. Similarly in some sector loans and agricultural projects, slum-upgrading projects, minor water and sanitation systems projects, and highway improvement projects, base costs may be estimated by extrapolation using unit prices derived from detailed designs and specifications for sample areas and facilities which are representative of the various project components.

3.4.3.3.5. Such bases for estimating are acceptable to ADB, provided that the appraisal team is assured of the relevancy and currency of the data, and that, where necessary, appropriate risk contingencies are provided.

3.4.3.4. Treatment of Financial Charges During Development (FCDD)

3.4.3.4.1. Financial charges during development (FCDD) can include interest, commitment charges and front-end fees. FCDD must be shown in the cost estimates table.

3.4.3.4.2. A brief discussion of FCDD should be included in an RRP appendix or supplementary appendix. The discussion should summarize the rationale for including FCDD in the project costs, detail the criteria used, and describe the calculation method. The calculation method should follow that normally applied in computing interest charges when forecasting Income Statements and Cash Flow Statements in the financial analysis of an EA's financial performance.

3.4.3.4.3. The period of charging FCDD against loan proceeds should be specified. This period will normally be the same as, or less than, the project implementation period.

3.4.3.5. Requests for Retroactive Financing

3.4.3.5.1. The term "retroactive financing" refers to ADB financing of project expenditures incurred and paid for by the borrower or recipient during or after appraisal but before an ADB loan or technical assistance agreement becomes effective. OM 12 (*Retroactive Financing*) should be referred to in the first instance. As a general rule, no funds can be disbursed for expenses incurred prior to the date of effectiveness of the loan agreement. However, based on a prior agreement between ADB and the borrower, a special clause authorizing the financing of certain expenses incurred before this date may be included in the loan agreement. This clause will show the amount of the retroactive financing, the category of expenses concerned, and the date from which the expenses may be incurred.

3.4.3.5.2. The financial analyst should ensure that any borrower requests and justifications for retroactive financing are recorded in the aides memoire prepared during project identification, project preparation, and/or project appraisal, as well as in related reports issued on return to Headquarters.

3.4.3.6. The Treatment of Taxes and Duties

3.4.3.6.1. As discussed in section 3.4.3, ADB does not finance taxes and duties that are likely to be incurred in acquiring goods and services required for project implementation. The financial analyst should advise the borrower and the EA of this funding limitation, and ensure that the borrower/EA understand that their funding sources must meet these obligations.

3.4.3.6.2. In some projects, goods and services costs include taxes and duties (including customs duties), but the amount of these taxes and duties is not well defined. In these cases, the percentage amount to be financed by ADB, for that category of goods and services in the loan agreement, should be reduced by an amount estimated to equal the amount of taxes and duties. For example, if cement costs include taxes and duties estimated to represent 30 percent of the total invoiced price, ADB should only be obligated in the category of goods that includes cement to finance 70 percent of the invoiced price.

3.4.3.6.3. Where there are multiple items in the same category, some of which bear no taxes, and others that are charged at varying rates, the financial analyst must work with the technical experts to prepare a cost analysis of the goods in order to estimate the overall percentage reduction in ADB financing for the category concerned.

3.4.3.6.4. In some sectors, ADB may be invited to finance incremental salaries and wages of the EA or of involved departments and agencies of government and local organizations. In these cases also, these incremental costs often include taxes in the form of income taxes, employer contributions to national insurance, social security contributions, and similar employee benefits. These are not eligible for ADB financing and should be eliminated from calculations of ADB financing of incremental (or any other forms) salaries and wages. In this regard, it is important for the financial analyst to work with the EA to establish a mechanism for claiming reimbursements from ADB of expenses net of taxes and duties.

3.4.3.6.5. The costs of excluding taxes and duties should be kept to a minimum. As such, formulas that are to be used should be agreed between the EA and ADB, and notified to the external auditor, so that the external auditor may apply suitable tests to verify Statements of Expenditure (SOEs) and direct payments.

3.4.3.6.6. It should be noted that ADB does not seek to exclude any small amounts of indirect taxation on duties levied at secondary or tertiary stages of manufacture of goods and services to be used by the project. For example, taxes on petroleum products used in the manufacture of plastic containers would not be quantified and excluded. However, taxes and duties on petroleum products purchased directly by the EA and intended for project construction purposes should be excluded from invoices when submitted to ADB for reimbursement.

3.4.4. Determining Contingencies

3.4.4.1. Contingencies in General

3.4.4.1.1. Contingencies are an integral part of the expected total project cost and normally are necessary for all project items involving significant expenditures. Contingencies cannot provide assurance against the effects of all possible adverse events or conditions.

3.4.4.1.2. Contingency allowances should reflect probable (forecast) physical and price changes and costs arising from special risks that can reasonably be expected to increase the base cost estimate. All contingency allowances should be identified in cost tables separately from base cost estimates and any special features relating to them should be explained in the RRP text.

3.4.4.1.3. Separate estimates should be made of physical contingencies and of price contingencies and shown as line items in the project cost table. For projects with several major components, it is generally desirable to present contingency estimates separately for each component as well as for the project as a whole. The text accompanying the cost tables should discuss the physical factors, price changes and risk factors expected to affect the project costs from the date of the base cost estimates specified in the RRP and the completion of the project.

3.4.4.1.4. Where financing charges are included in the Project Cost Tables, contingencies may be necessary to reflect possible increased costs of funds during project implementation (outside of loan agreements that normally fix the interest rates on loans that may be used to finance FCDD, etc). These increases in financing costs should be regarded as price contingencies, but included in the financing charges and disclosed (with justification) in the RRP.

3.4.4.1.5. Appraisal missions should confirm that: (i) the estimates produced for RRP's specifically designate all physical and price contingencies as such; (ii) the amounts are reasonable; and (iii) no contingencies are included in the base cost estimates. Note the following exceptions:

- technical assistance projects
- financial institutions that propose to implement industrial and agricultural credit projects, and
- sector and subsector adjustment loans.

3.4.4.1.6. In the case of technical assistance projects and industrial development finance and agricultural credit projects – where the project is essentially a line of credit to help finance a program defined in financial terms and without specific physical content – contingency allowances should not be added separately.

3.4.4.1.7. Price contingencies should only be included for those sector/subsector loans, where physical targets may have been broadly defined but the exact scope is not essential to the success of the project (e.g., installation of 500 serviced sites as part of a rolling program, or maintenance of rolling stock in railway workshops).

3.4.4.1.8. The text of the RRP should specify exceptions. The impact on such projects of any shortfall in the expected amounts of works, goods or services should be tested by sensitivity analysis.

3.4.4.2. Determining Physical Contingencies

3.4.4.2.1. Allowances for physical contingencies reflect expected increases in the base cost estimates of a project due to changes in quantities, methods, and period of implementation. Physical contingencies should be calculated in foreign and local cost terms, and expressed as percentages of the foreign and local base costs in the project cost table.

3.4.4.2.2. The principal factors from which uncertainties arise in civil works and for which provisions for physical contingencies should be made are: (i) the type of terrain where the project is to be constructed, particularly (a) geologically difficult areas where slips and slides are frequent but are difficult to predict, (b) areas of thick marine clay deposits where the flooding potential is high, and (c) areas subject to frequent earthquakes; (ii) the climatic conditions in the project area (e.g. the susceptibility to cyclones or the likelihood of unusual rain or wind conditions); (iii) difficult access to the work site because of long and poorly-maintained roads or railroads which may be subject to flooding, landslides, etc.; (iv) the amount of field work that has been completed, particularly the degree of thoroughness of borings and sub-surface exploration as well as the location and testing of construction material sources (gravel, rock quarries, etc). Some projects covering a large area or involving very long and deep excavations, such as tunnels, are so expensive, or even impossible, to explore thoroughly in advance that it is prudent to assume some risks of encountering poor conditions; (v) the consultant's knowledge of local conditions of materials and labor costs; (vi) the degree of precision with which the quantity estimates have been prepared; (vii) the possibility of design changes during construction and the addition of unforeseen items; and (viii) the quality of contract supervision.

3.4.4.2.3. Some of the main factors from which uncertainties arise with regard to material and equipment components are: (i) the degree of precision with which quantity

estimates of needed material and equipment, including necessary spare parts, have been prepared; (ii) the extent to which detailed specifications for material and equipment have been set; and (iii) the extent to which equipment is to be purchased off-the-shelf or on special order.

3.4.4.2.4. The extent to which the services can be accurately defined in advance is a major cause of uncertainties with respect to the provision of services. If the extent of the services can only be fully defined during the course of project implementation – for example, in the case of site investigations for the design of a large command area irrigation scheme – a relatively large contingency allowance for this portion of the services might be reasonable.

3.4.4.2.5. ADB expects that physical contingencies would normally be between 5-10 percent; however, they would be higher for marine work, tunneling, dam construction or road construction involving difficult soil conditions. Acceptable ranges of physical contingencies will vary from sector to sector as well as for the various components of a project. As an example, the allowances for civil engineering works for power stations probably would be higher than those for the supply of materials or equipment for schools.

3.4.4.2.6. When physical contingencies are relatively large, for example, more than 10 to 15 percent overall, consideration should be given to further refinement of basic designs and additional site investigations before appraisal in order to reduce uncertainties. In any event, if the physical contingencies exceed five percent of the base cost, justification should be made in the fact-finding BTOR (and Aide Memoire) and the RRP.

3.4.4.2.7. Higher contingency provisions, which must be fully justified in the RRP, are often necessary to reflect extraordinary uncertainty inherent in works such as structural foundations in difficult soils, pile driving, tunnels, dam foundations, rehabilitation of existing facilities, where it is too costly, or impractical to further refine the quantity and cost estimates.

3.4.4.3. Determining Price Contingencies

3.4.4.3.1. Price contingency allowances reflect forecast increases in project base costs and the physical contingencies due to changes in unit costs for the various project components/elements beyond the date of the base cost estimates. Price contingencies should be expressed as percentages of the base costs plus physical contingencies, separately for the local and foreign expenditures of the project, and for the project as a whole.

3.4.4.3.2. Allowance for price contingencies has to provide for any expected price increase during the project implementation period, from the date of the base cost estimate. With respect to foreign cost components, the Central Operations Services Office (COSO)

will from time to time provide suggested price-escalation factors for internationally procured goods and services. These price-escalation factors should not be applied mechanically. If they are deemed to be inadequate or excessive, more appropriate factors could be applied with the approval of the concerned regional director.

3.4.4.3.3. For local cost components, the expected price increases should be calculated in accordance with the inflation rate in the borrowing country. COSO will from time to time provide suggested escalation factors to be applied for local cost estimates, although general ADB practice is to use the foreign inflation factors.

3.4.4.3.4. In determining the appropriate amount to be allowed for price contingencies, the following key factors should be considered: (i) The Project execution period – this is important not only for estimation of the cost of local resources but also for the assumptions regarding exchange rate adjustments, including a realistic estimate of the time between the date of the base cost estimate and the start of the construction or implementation; (ii) In the absence of some rationale for modifying a COSO estimate in a specific instance – which should be explained in the fact-finding BTOR and the RRP – the inflation data should be consistently applied to all projects in that country; (iii) The extent of expected annual increases in international prices of works, goods and services to be used in the project; (iv) The extent to which local or foreign prices for particular types of works, goods and services will follow general inflationary trends. For example, when a construction industry is overextended or depressed, price trends may exceed or be lower than the general movement of prices; similarly, technological improvements in the production of some types of equipment have resulted in a much lower rate of price increase than for international prices overall; and (v) The extent to which a large project may have the effect of increasing the cost of local resources such as land, labor and raw materials more rapidly than the general price escalation.

3.4.4.3.5. If, in the opinion of the financial analyst (and/or the mission), distortions may occur due to significant differences between domestic and foreign inflation rates and potential exchange rate adjustments, the issues, where necessary, should be referred after discussion with the Operations Coordination Division, to the Regional Director. This could pertain to those countries that are prone to frequent devaluation.

3.4.4.3.6. The allowance for price contingencies has to be worked out on an item-by-item basis and has to be related to the terms of payment and the time when payments become due and payable. The cumulative rate of price increase for a particular year has to be calculated by compounding the estimated rate of price rise in prior years and one half of the rate of price increase in the year concerned for application to the amounts to be expended each year as per the base cost estimate. In the following example: (i) procurement is assumed to commence one year after the date of the Project Cost

Table; (ii) Years Two to Six are years of implementation; and (iii) normally compound interest tables would be used to calculate the increase for the years prior to procurement before adding 50 percent of the latest (current) year's inflation rate.

Example: Calculating Price Contingencies for Project Appraisal and Financial Projections

Year	Base Cost + Physical Contingencies in Project Cost Table	Rate of Inflation from date on Project Cost Table	Calculation	Inflation-adjusted Base Cost + Physical Contingencies	Increase due to Inflation
1	0	2.4%	Year for negotiations, Board approval signing, etc	0.00	0.00
2	50	2.4%	$50 \times (1 + 0.024) \times (1 + 0.012)$	51.81	1.81
3	100	2.4%	$100 \times (1 + 0.024) \times (1 + 0.024) \times (1 + 0.012)$	106.12	6.12
4	200	2.4%	$200 \times (1 + 0.024) \times (1 + 0.024) \times (1 + 0.024) \times (1 + 0.012)$	217.33	17.33
5	75	2.4%	$75 \times (1 + 0.024) \times (1 + 0.024) \times (1 + 0.024) \times (1 + 0.012)$	83.45	8.45
Totals	425			458.71	33.71

3.4.4.3.7. Governmental procurement procedures which award only fixed-price contracts even when construction is over a number of years, or which set a ceiling on the allowable price adjustment should be ignored when preparing project costs for ADB financing. Bidders typically adjust for such practices by increasing their base bids and the total cost including price contingencies is often not significantly different to the project cost forecast by ADB.

3.4.4.3.8. Accordingly, in using estimates prepared on the basis mentioned in the previous paragraph for comparative purposes in establishing the base cost estimates, care should be taken to deduct any price contingencies implicitly included as part of the base cost.

3.4.4.4. Determining Risk Contingencies

3.4.4.4.1. The standard approach to the costing of a project requires that the cost of land, equipment, goods and services should be based on current prices with allowances for unknown physical conditions that may increase costs, and for inflation. But where current prices cannot be determined until the borrower takes certain steps or decisions, or certain events have occurred it may be necessary to include a risk contingency. An alternative is to encourage the borrower to insure against risk, possibly by using the Multilateral Investment Guarantee Agency (MIGA).

3.4.4.4.2. Risk contingencies are infrequently used because, wherever possible, the financial impact of future events should be reflected either in base costs, or in physical or price contingencies. Therefore a strong justification is required for their inclusion as a separate line item in a cost table. Such justifications are typically used as a means of explaining to ADB management that current circumstances pertaining to the costing of the project make normal estimation techniques unreliable.

3.4.4.4.3. The provision of a separate line item is to ensure that the attention of ADB management is deliberately drawn to the risk and its potential cost impact on the project; and that the provision will not be used for any purpose other than the specific risk(s) identified in the cost table. When ADB staff consider that certain conditions may be present to a degree which makes the estimation of costs of future events/activities, (such as biddings) particularly uncertain, a special item of “risk allowance” should be calculated and shown separately from the physical and price contingencies. As an example, because of uncertain political and economic conditions, foreign contractors may only offer bids for work in a country at prices which include a premium for the unusual risks they would face.

3.4.4.4.4. Any part of the “risk allowance” not needed after bids are received should be cancelled, and not reallocated to the general contingencies. Suitable language should be included in the loan agreement to this effect. A “risk allowance” contingency, if used, should be included as a separate contingency item in the cost table and the reasons for it, the amount, and possible cancellation should be explained in the text of the RRP and in the loan agreement. This contingency should be included in the financial and economic sensitivity analysis. In lieu of including a separate risk allowance, it may be preferable to require the prospective borrower to complete the bidding process to the stage of bid evaluation before the loan is made.

3.4.4.4.5. In the event that a borrower would insure a risk with the Multilateral Investment Guarantee Agency (MIGA), the costs of the premium should be shown as a line item in the Project Cost Tables.

3.4.5. Disbursement Profiles

3.4.5.1. ADB has gained considerable experience and information since it began its operations with regard to the capacity and capability of borrowers and their EAs in the various sectors to fulfill their commitments to construction schedules.

3.4.5.2. Disbursement patterns show that borrowers rarely meet these schedules, and time (and cost) overruns are a consistent feature of many lending operations. Therefore, the forecast construction period of a project should not vary greatly from the

average for similar projects executed in the same sector in the country concerned. The financial analyst should obtain disbursement data for the country and sector in which the project under development is located to develop a disbursement profile.

3.4.5.3. The adoption of realistic implementation and disbursement estimates based on sector/country disbursement profiles should be reflected in the contingencies allowances and the economic rate of return and financial internal rate of return calculations.

3.4.5.4. Base costs are typically estimated as part of a feasibility study and are refined to take into account any further engineering and other detailed preparation work that has taken place by the time of appraisal.

3.4.5.5. With large, complex projects, or in cases where there is little record of recent procurement involving ADB projects in the country, the services of specialized cost estimating firms, or quantity surveyors, or the advice of contractors or manufacturers may be employed to confirm or modify base cost estimates.

3.4.5.6. During appraisal, the estimates should be adjusted and updated to take account of any price changes in the period between their preparation and the base cost date specified in the RRP.

3.4.6. Preparing Financing Plans

3.4.6.1. The Project Cost Table will provide as its bottom line, the total financing required for a project. It is essential that the means of financing this total expenditure is specifically defined in the appraisal report. The illustration and discussion of the financing plan for a project to be implemented by a revenue-earning enterprise usually consists of a summary – all in current terms – of:

- the project financing requirements and the external sources of finance from the cash flow statement
- other capital and incremental working capital expenditures occurring during the project development period
- incremental and initial operating costs to be incurred during the implementation period, to be financed out of either project capital funding, or from local budgetary provisions
- net income from any ongoing operations, and
- debt servicing.

3.4.6.2. In a non-revenue-earning entity, where there are rarely any internally generated sources of funds, project financing is usually not related to the future financial

performance of the entity. In such cases, the illustration and discussion of the financing plan would be confined to the project only and set out with the discussion on project costs.

3.4.6.3. The text of an appraisal report requires a discussion of the financing plan. In the case of a non-revenue-earning project, this is normally an extension of the discussion of the Cost Estimates. In the case of a revenue-earning project to be implemented by an executing agency, a summary financing plan may be included after the Project Cost Estimates table. A detailed discussion on the financing plan (with a comprehensive table showing the financing plan, where necessary) should be included as part of the Financial Analysis Chapter. The following items should be covered, with detailed explanations, where necessary, in an appendix to the report: (i) any cofinancing arrangements; (ii) availability of internal funds, referenced as necessary to the cash flow statements; (iii) the self-financing ratio, particularly when this is to be incorporated in an operating covenant; (iv) equity contributions; (v) terms of loans, including interest rates (or onlending rates, where applicable), grace periods, repayment periods, incidence of foreign exchange risk, guarantee fees and interest during construction; and (vi) the dependability of the financing plan in terms of firm commitments that have been received, the progress of negotiations where loans or equity contributions have not been finalized, the availability of additional sources of funds in the event of cost overruns or lower than expected generation of internal funds, and a sensitivity analysis relating to the latter items.

3.4.6.4. Funds from all principal sources should be identified as line items in a financing plan. Funds sources should be set out in terms of foreign and local currencies, using the US dollar as the foreign currency, and grouped in the table under local and foreign sources, including ADB loans, funds from other foreign lenders and donors, local loans, local equity including government grants and subsidies, and internally-generated funds.

3.4.6.5. In cases where the EA is conducting an ongoing operation, as in the case of a public sector enterprise, it may, or may not, be generating sufficient funds from ongoing operations to support these activities. It is, therefore, advisable to include in the financing plan either the net funding through the period of the financing plan that the agency will generate, or the additional funding needs that it will require, to operate and maintain its existing and new facilities. The sources of additional funding should be identified, for example, subsidies from government. The financing plan should contain an explicit reference to any contributions to investment to be made by the agency during implementation, with specific reference to the acceptability to the ADB of a policy of deficit funding by government, including any policy that, in effect, contributes to the capital investment of the EA.

3.4.6.6. The following is an example of a typical summarized Financing Plan.

	Local Currency	Foreign Exchange	Total	%
Funds Required				
Proposed Project				
Capital expenditures	0.00	0.00	0.00	
Operating expenditures	0.00	0.00	0.00	
Financial charges during development	0.00	0.00	0.00	
TOTAL PROJECT REQUIREMENTS	0.00	0.00	0.00	100%
Sources of Funds				
Proposed ADB loan				
Proposed ADB loan	0.00	0.00	0.00	
Other loans				
Other loans	0.00	0.00	0.00	
Equity or capital contributions				
Government				
Government	0.00	0.00	0.00	
Other sources				
Other sources	0.00	0.00	0.00	
Subsidies for operations				
Subsidies for operations	0.00	0.00	0.00	
Internal cash generation				
Internal cash generation	0.00	0.00	0.00	
TOTAL SOURCES	0.00	0.00	0.00	100%

3.4.7. Computing Incremental Project Cash Flows

3.4.7.1. A project's annual net cash flows should be forecast over the project life (including the implementation period). Annual net cash flow is the difference between annual cash receipts and annual cash payments. In cases where the project represents incremental development – for instance, the extension of an existing power plant – flows should be computed on an incremental basis (e.g., “with project scenario” and “without project scenario”).

3.4.7.2. The cash flows should include all payments incurred to construct, operate and maintain the project facilities over its useful life. The cash flows should be expressed in real terms, that is nominal (current) costs as expressed in financial projections, excluding any interest paid or received and any inflation elements included therein. All kinds of taxes in the forms of customs and excise duties, value added taxes, similar levies and income taxes should be included. The estimate of taxes on earnings should be based on operating income (before financial expenses but after depreciation) generated from the project and at the effective tax rate.

3.4.7.3. The capital cash flows should be reconcilable with the project cost estimates; that is with the base costs and physical contingencies, but with the exclusion of price contingencies and financial charges during development (FCDD). Price contingencies are excluded because the FIRR is calculated in real terms (i.e., without the effects of price

escalation and/or foreign currency rate fluctuations). FCDD are excluded so that project benefits can be compared against project costs – this effectively segregates the investment decision from the financing decision. The benefits should include all cash receipts (including subsidies) in real terms derived from project inputs and salvage (resale) values receivable on asset disposals. Typically the enterprise-wide forecasting period for financial analysis presentations won't exceed five years beyond the completion of project construction, even though normal operating levels may not have been reached; this will not provide enough information to prepare a financial benefit-cost analysis for the project investment on a discounted cash flow basis. This shortcoming may be overcome by preparing an income statement forecast for the project in isolation up to the achievement of capacity operations and assuming that the net cash flow is held constant thereafter. If the project is one of several being executed by an EA (e.g., railways), separate projections must be prepared.

3.4.7.4. Project cost streams are calculated using real terms. The relevance of contingencies for the project financial analysis therefore depends upon whether or not the contingencies reflect the use of additional real resources: (i) physical contingencies represent the estimated cost of the expected additional real resources required and therefore should be included in this analysis of all projects; (ii) price contingencies should be excluded from a financial benefit-cost analysis; and (iii) risk contingencies, that may be included in project cost estimates should be included where these represent the likely cost of a physical risk, but excluded where they relate to a cover for the risk of changes in prices (as for price contingencies in the previous paragraph). But it should be noted that risk contingencies that relate to pricing of goods and services are often withdrawn following receipt of bids. The results of these bids may require revisiting the financial benefit-cost analysis.

3.4.7.5. Financial analyses such as cash flow projections or financing plans are to be prepared in current price terms and should include all contingency allowances.

3.4.7.6. Exchange rates for converting currencies MUST be fixed at a particular date. These rates must be consistently applied throughout the forecast period.

3.4.7.7. An example of a net cash flow calculation is shown in the table below (Note that years 2006-2009 are not shown in this example). The project costs comprise: (i) phased investment payments during 2001-2004; (ii) operation and maintenance costs (\$1.40 per m³ water sold); (iii) sales taxes (1 percent on water sales, 3 percent on connection fees); (iv) business and land taxes (lump sum of \$100,000 per year); and (iv) connection costs (\$1,425 per connection).

3.4.7.8. A clear statement of assumptions should support the forecast cash flows. The assumptions should state the exchange rates used for conversion purposes. Furthermore, the assumptions must state whether the forecast cash flows have been prepared in current or real terms. Where they have been prepared in real price terms, the reasons for doing so must be stated clearly.

Net Cash Flows (2001: \$'000s)

	2001	2002	2003	2004	2005	2010-2031
Operating Cash Flows						
Receipts:						
• Water sales receipts						
♦ Domestic consumers	0	668	1,613	2,922	4,740	12,217
♦ Government establishments	0	21	50	80	124	726
♦ Private establishments	0	32	76	117	170	997
Subtotal	0	722	1,739	3,119	5,034	13,940
• Connection fees	0	2,552	3,068	3,689	4,436	0
Total operating receipts	0	3,273	4,807	6,807	9,470	13,940
Payments:						
• Operation and maintenance	0	-410	-918	-1,534	-2,303	-4,281
• Sales taxes	0	-84	-109	-142	-183	-139
• Business/land tax	0	-100	-100	-100	-100	-100
• Connection payments	0	-2,424	-2,914	-3,504	-4,214	0
Total operating payments	0	-3,018	-4,041	-5,280	-6,800	-4,520
Net Cash Flows from Operations	0	255	766	1,527	2,670	9,420
Investing Cash Flows						
Investments	-7,184	-43,107	-64,660	-28,738	0	0
Net Cash Flows to Investments	-7,184	-43,107	-64,660	-28,738	0	0
Net cash flows	-7,184	-42,852	-63,894	-27,211	2,670	9,420

3.5. Preparing Financial Benefit-Cost Analyses

3.5.1. Introduction

3.5.1.1. ADB requires that financial and economic analyses be undertaken for projects. Both types of analysis have the same objective – to assess whether the proposed investment is viable. The concept of financial viability is not the same as economic viability. The financial analysis of a project examines the adequacy of returns to the project-operating entity and to the project participants, whereas economic analysis measures the effect of the project on the national economy, as a whole.

3.5.1.2. For a project to be economically viable, it must be financially sustainable, as well as economically efficient. If a project is not financially sustainable, economic benefits will not be realized. Financial analysis and economic analysis are therefore complementary.

3.5.1.3. While both types of analysis are conducted in monetary terms, the major difference lies in the definition of costs and benefits. In financial analysis, all expenditures incurred under the project and revenues resulting from it are taken into account. This form of analysis is necessary to (i) assess the degree to which a project will generate revenues sufficient to meet its financial obligations; (ii) assess the incentives for producers, and (iii) ensure that demand or output forecasts on which the economic analysis is based are consistent with financial charges or available budget resources. Economic analysis attempts to assess the overall impact of a project on improving the economic welfare of the citizens of the country concerned. It assesses a project in the context of the national economy, rather than for the project participants or the project entity that implements the project.

3.5.1.4. This part of the Guidelines describes ADB's approach to preparing financial benefit-cost analyses, which involves seven steps:

- Preparing project cost estimates (see section 3.4.3)
- Forecasting incremental project net cash flows (see section 3.4.7)
- Determining the appropriate discount rate (i.e., Weighted Average Cost of Capital (WACC) serving as a proxy for the financial opportunity cost of capital (see section 3.5.2))
- Calculating the financial net present value (see section 3.5.3)
- Calculating the financial internal rate of return (FIRR) (see section 3.5.3)
- Undertaking risk and sensitivity analysis. The sensitivity analysis examines the likely effect of changes in forecasting assumptions on the project's financial viability (see section 3.5.4)

3.5.1.5. The project RRP should describe how the project's FIRR compares with WACC. The RRP appendixes should include supporting analyses including sensitivity analyses. The Knowledge Management section of the web-based Guidelines contains Chapter 5 of the *ADB Handbook for the Economic Analysis of Water Supply Projects*. The chapter is structured around a worked example of financial cost-benefit analysis for a water supply project and should be read in conjunction with ADB's *Guidelines for the Economic Analysis of Projects*.

3.5.2. Determining the Discount Rate (WACC)

3.5.2.1. *Financial Opportunity Cost of Capital (FOCC)*

3.5.2.1.1. The net cash flows during the lifetime of the project (30 years) are discounted at the financial opportunity cost of capital (FOCC) to show the project's worth. The financial internal rate of return (FIRR) calculated on the net cash flows shows the project's profitability.

3.5.2.1.2. The weighted average cost of capital (WACC) serves as a proxy for the FOCC to assess the financial viability of projects. Although it is an accepted benchmark, it is important to understand that the WACC may not fully reflect the FOCC in the market. Although a project may generate sufficient returns to allow full recovery of all investment and operations and maintenance costs while still yielding a small return on investment, this return may not be sufficient incentive for the owner to make the original investment or to maintain the investment.

3.5.2.1.3. Private foreign investors will be looking for returns on equity that also includes an allowance for risks, such as political and economic. Private domestic investors will also have alternative investments, whether they are in financial assets, other productive activities or areas such as real estate. Government investment may be guided by whether the funds are fungible (interchangeable), by the real cost of investment funds and the economic benefits of the project. If funds are fungible, they may be more interested in investing in projects with higher returns, economic and/or financial.

3.5.2.1.4. Finally, projects with low returns are riskier to implement and strain the financial sustainability of the corporate entity (public or private) charged with its operation and maintenance. Consequently, it is important to keep these issues in mind when comparing the FIRR of a project against a benchmark such as the WACC. These issues become particularly important as the role of government in the supply and operation and maintenance of infrastructure services changes and private sector participation becomes more prevalent.

3.5.2.2. *Calculating the Weighted Average Cost of Capital (WACC)*

3.5.2.2.1. The discount rate to be used in financial benefit-cost analyses is the WACC. The WACC represents the cost incurred by the entity in raising the capital necessary to implement the project. Since most projects use several sources to raise capital and each of these sources may seek a different return, the WACC represents a weighted average of the different returns paid to these sources.

3.5.2.2.2. The RRP should include a demonstration of how the FIRR (which is in *real* terms) compares with the WACC for the **actual project**, also expressed in real terms. Both FIRR and WACC should be measured on after-income tax bases. The following approach should be taken to the WACC calculation. Reference is made to the sample calculation shown below.

Step 1. **Categorize** financing components as shown in the table below. These components should be taken from the Project Financing Plan as the WACC is calculated only for the project – not for the organization as a whole.

Step 2. **Estimate the Cost of Funds.** Ascertain the actual lending (or onlending) rates, even where these may not be the current market rates, together with the cost of equity contributed as a result of the project.

- Government funds are not costless – they might be applied to purposes other than the project, such as debt repayment or to alternative investments. For simplicity, the average cost of government funds can be calculated by dividing total government debt servicing by total public debt.
- In estimating the cost of equity capital, the degree of business (industry) and financial (bankruptcy) risks should be considered and an appropriate risk premium over market borrowing rate should be added. The domestic rate of inflation should be deducted from the nominal cost of equity. Financial analysts may wish to refer to a corporate finance textbook for conceptual guidance.⁹ However, it should be recognized that these methods were developed in countries with sophisticated capital markets for which data is readily available. In most cases, only a small amount, if any, of project financing will be provided by the organization. As such, the estimate of the cost of equity capital is unlikely to unduly affect the WACC. However, the means by which the estimate is developed should be documented.

Step 3. **Adjust for Corporate Tax.** Ascertain whether or not the interest payments relating to each component are deductible for corporate tax purposes and, if so, the level of the applicable tax rate. Adjust each component as appropriate.

Step 4. **Adjust for Domestic Inflation.** The estimated costs of borrowing and equity capital should be adjusted for inflation to obtain the WACC in real terms.

⁹ See for instance: Brealey, Richard A. and Stewart C. Myers. 1999. *Principles of Corporate Finance*. 6th Ed. McGraw-Hill.

- For foreign-sourced loans, ADB requires that a premium for foreign exchange risk is included in the WACC. On the other hand, foreign-sourced funds are required to be adjusted for foreign inflation. To simplify the WACC calculation, it should be assumed that the foreign exchange risk premium exactly offsets the prevailing foreign inflation rate. As such, neither of these factors need to be estimated and applied.
- ADB's projected domestic inflation rate should be used for domestically-sourced loans and equity.

Step 5. **Apply the Minimum Rate Test.** Review the real cost of capital for each component. Each component should be at least 4 percent. If not, replace the derived value with 4 percent.

Step 6. **Determine the WACC.** Apply the weighting percentage to each component to derive the WACC.

Methodology for Calculating Weighted Average Cost of Capital (WACC)

	Financing Component					Total
	ADB loan	Foreign Loans	Domestic Loans	Government Funds	Equity Participation	
A. Amount (\$'000)	50,000	5,000	5,000	30,000	10,000	100,000
B. Weighting	50.00%	5.00%	5.00%	30.00%	10.00%	100.00%
C. Nominal cost	6.70%	6.70%	12.00%	7.00%	10.00%	
D. Tax rate	40.00%	40.00%	40.00%	0.00%	0.00%	
E. Tax-adjusted nominal cost [$C \times (1 - D)$]	4.02%	4.02%	7.20%	7.00%	10.00%	
F. Inflation rate	...	...	4.00%	4.00%	4.00%	
G. Real cost [$(1 + E) / (1 + F) - 1$]	4.02%	4.02%	3.08%	2.88%	5.77%	
H. Minimum rate test [$H = 4.0\%$]	4.02%	4.02%	4.00%	4.00%	5.77%	
I. Weighted component of WACC	2.01%	0.20%	0.20%	1.20%	0.58%	4.19%
Weighted Average Cost of Capital (Real)	4.19%					

3.5.2.2.3. In this example, the project provides its own equity capital (10 percent) and raises additional capital from local banks (5 percent), from foreign banks (5 percent), from ADB (50 percent), and obtains a government grant (30 percent). Differing nominal returns on each source of capital are assumed, including the expected return of 10 percent on its equity to its shareholders.

3.5.2.2.4. Interest payments to ADB, to the local bank and to the foreign bank are deductible from pretax income, with corporate taxes of 40 percent (60 percent of interest payments to ADB and to the commercial bank remains as the actual cost of capital to the

project). Dividends paid to shareholders (if any) are not subject to corporate tax (although they might be subject to personal income tax, which does not impose a cost to the entity).

3.5.2.2.5. In the example, the WACC in real terms amounts to 4.19 percent. This is the discount rate to be used in the financial benefit-cost analysis of this particular project as a proxy for the FOCC.

3.5.3. Calculating the Financial IRR and NPV

3.5.3.1. The profitability of a project to the entity is indicated by the project’s financial internal rate of return (FIRR). The FIRR is also the discount rate at which the present value of the net cash flows in financial terms (FNPV) becomes zero.

3.5.3.2. The following table provides an example of FIRR and FNPV calculations. The table presents project receipts, payments, and net cash flows for the full project period (30 years) where, for the purpose of the illustration, it has been assumed that receipts and payments will remain constant from year 2006 onwards.

Example of FIRR and NPV Estimation (2001 prices: \$’000s)

Year	Payments	Receipts	Net Cash Flows	Year	Payments	Receipts	Net Cash Flows
2001	7,184	0	-7,184	2017	4,520	15,800	11,280
2002	46,125	3,273	-42,852	2018	4,520	15,800	11,280
2003	68,702	4,807	-63,895	2019	4,520	15,800	11,280
2004	34,018	6,807	-27,211	2020	4,520	15,800	11,280
2005	6,800	9,470	2,669	2021	4,520	15,800	11,280
2006	2,810	6,306	3,496	2022	4,520	15,800	11,280
2007	3,193	7,795	4,602	2023	4,520	15,800	11,280
2008	3,604	9,535	5,931	2024	4,520	15,800	11,280
2009	4,045	11,568	7,522	2025	4,520	15,800	11,280
2010	4,520	15,800	11,280	2026	4,520	15,800	11,280
2011	4,520	15,800	11,280	2027	4,520	15,800	11,280
2012	4,520	15,800	11,280	2028	4,520	15,800	11,280
2013	4,520	15,800	11,280	2029	4,520	15,800	11,280
2014	4,520	15,800	11,280	2030	4,520	15,800	11,280
2015	4,520	15,800	11,280	2031	4,520	15,800	11,280
2016	4,520	15,800	11,280				
Present Value (PV) @ 4.19%				198,877	201,437	2,560	
				FIRR			4.33%
				FNPV	@ 4.19 %	+ 2,560	
Note: The calculation of the FNPV using WACC is for illustrative purposes only				FNPV	@ 4.33 %	0	
				FNPV	@ 5.00 %	- 10,744	
				FNPV	@ 10.00 %	- 54,623	
				FNPV	@ 12.00 %	- 61,774	

3.5.3.3. The discount rate at which the present value of the net benefits becomes zero works out to be 4.33 percent. This is the FIRR, which should be compared to the WACC. If the FIRR exceeds the WACC, the project is considered to be financially viable. If the FIRR were below the WACC, the project would only be financially viable if subsidized by the government. In the example, the FIRR of 4.33 percent is above the WACC of 4.19 percent, and hence the project is financially viable.

3.5.3.4. The financial net present value (FNPV) shows the present value of the net cash flows, or the project's worth today. The discount rate to be used here is the WACC. A positive FNPV indicates a profitable project; (i.e., the project generates sufficient funds to cover its cost, including loan repayments and interest payments). If the FNPV, discounted at the WACC of 4.19 percent, turns out to be positive, the project is earning an interest of at least the required 4.19 percent. In the example, as the FIRR is 4.33 percent, the project earns an interest of 4.33 percent. The project, thus, earns more than the required 4.19 percent interest, recovers all investment and recurrent costs, and yields a very small profit.

3.5.3.5. A negative FNPV points to a project that does not generate sufficient returns to recover its costs, to repay its loan and to pay interest. Note that, as a general principle of discounting cash flows for the purpose of FIRR calculations, loan repayments and interest payments are not considered part of the economic cost.

3.5.3.6. Discounted at the WACC of 4.19 percent, the FNPV of the project is +\$2,560,000. The project is thus financially profitable. If a discount rate of 4.33 percent is used (equal to the FIRR), the FNPV (by definition) equals zero.

3.5.3.7. The example shows that if the discount rate used (4.19 percent) is below the FIRR (4.33 percent), the FNPV is positive; vice versa, if the discount rate used (5, 10, 12 percent) is above the FIRR (4.33 percent), the FNPV is negative.

3.5.4. Undertaking Sensitivity and Risk Analyses

3.5.4.1. Financial benefit-cost analysis is based on forecasts of quantifiable variables such as demand, costs, and revenues. The values of these variables are estimated based on the most probable forecasts, which cover a long period of time. The values of these variables for the most probable outcome scenario are influenced by a great number of factors, and the actual values may differ considerably from the forecasted values, depending on future developments. It is therefore useful to consider the effects of likely changes in the key variables on the viability (FIRR) of a project. Performing sensitivity and risk analysis does this.

- Sensitivity Analysis shows to what extent the viability of a project is influenced by variations in major quantifiable variables.
- Risk Analysis considers the probability that changes in major quantifiable variables will actually occur.

3.5.4.2. The viability of projects is evaluated based on a comparison of its FIRR to the financial opportunity cost of capital (FOCC). Alternatively, the project is considered to be viable when the Financial Net Present Value (FNPV) is positive, using the selected FOCC as discount rate. Sensitivity and risk analyses, therefore, focus on analyzing the effects of changes in key variables on the project's FIRR or FNPV, the two most widely used measures of project worth.

3.5.4.3. Sensitivity analysis is a technique for investigating the impact of changes in project variables on the base-case (most probable outcome scenario). Typically, only adverse changes are considered in sensitivity analysis. The purpose of sensitivity analysis is to: (i) to help identify the key variables that influence the project cost and benefit streams; (ii) investigate the consequences of likely adverse changes in these key variables; (iii) assess whether project decisions are likely to be affected by such changes; and (iv) identify actions that could mitigate possible adverse effects on the project.

3.5.4.4. Sensitivity analysis needs to be carried out in a systematic manner. To meet the above purposes, the following four steps are suggested:

- Step 1: Identify key variables to which the project decision may be sensitive.
- Step 2: Calculate the effect of likely changes in these variables on the base-case IRR or NPV, and calculate a sensitivity indicator and/or switching value.
- Step 3: Consider possible combinations of variables that may change simultaneously in an adverse direction.
- Step 4: Analyze the direction and scale of likely changes for the key variables identified, involving identification of the sources of change.

3.5.4.5. The Knowledge Management section of these Guidelines provides further information on each of these steps in the context of a numerical example. It also discusses the use of risk analysis (see section 7.11). The information generated can be presented in a tabular form with an accompanying commentary and set of recommendations, such as the example shown below (Please note that this example is a simplistic illustration; it focuses on just six variables – a proper sensitivity analysis will examine all the key variables including all financial performance covenants).

Simple Sensitivity Analysis: Numerical Presentation

Item	Change	FNPV	FIRR %	SI (FNPV)	SV (FNPV)
Base Case		126	13.7		
Investment	+ 10%	-211	9.6	13.3	7.5%
Benefits	-10%	-294	7.8	16.6	6.0%
Operating and maintenance costs	+ 10%	68	12.9	2.3	43.4%
Currency rate movements	-20%	-211	9.6	13.3	7.5%
Construction delays	One year	-99	10.8	NPV 178% lower	

SI = Sensitivity Indicator, SV = Switching Value

3.5.4.6. Sensitivity tests are not without problems. Correlations among the variables often pose serious difficulties. The usual technique of varying one variable at a time, keeping the others constant at their expected values, is justified only if the variables concerned are not significantly correlated; otherwise the related variables must be varied jointly. Furthermore, sensitivity analysis may not identify any variable that, by itself, significantly affects the overall result, even though a long list of variables is tested. This does not necessarily mean that the project concerned is not risky as it ignores the effects of possible joint variations. In such cases the sensitivity of the outcome to changes in several combinations of variables that are expected to vary together must be explored, for example revenues rather than price and quantity separately. But it should be noted that the greater the degree of aggregation, the less useful is the information provided by the tests.

3.5.4.7. For financial analysis purposes, it may prove more useful to select features of the financial structure of a project (or an EA) that are likely to prove highly sensitive to costs or revenue flows and could cause early or midterm financial failure, even though the financial rates of return may suggest satisfactory long-term performance. Examples are debt service coverage, operating ratio and self-financing ratio. **At the least, all financial performance covenants stipulated for the project, together with the FIRR, should be subjected to sensitivity analyses.**

3.6. Loan Covenants

3.6.1. Introduction to Loan Covenants

3.6.1.1. As discussed in section 4.4, various performance measurement devices have been developed over time to enable owners, lenders and managers to assess enterprise and project performance. To assist EAs to achieve their financial objectives, as well as governmental economic objectives that are being supported by ADB loans, ADB seeks

assurance that the operational objectives of an EA agreed with the borrower, would be met at least through the life of the project. The Office of the General Counsel (OGC) translates these objectives into covenants. These covenants are designed to: (i) enhance the financial performance of the entity; and (ii) ensure that the investment, including ADB loan proceeds, is used effectively.

3.6.1.2. ADB asks its borrowers to perform or comply with certain covenants that are considered essential to achieving the objectives and financial viability of the project as described in the loan agreement in a manner that is consistent with ADB's policies and to ensure the financial viability of the entity. Covenants in loan agreements seek the achievement of enterprise objectives. They are varied in nature, often addressing technical, social and economic performance, in addition to financial performance. Financial performance covenants can be broadly classified into two categories, namely financial and management systems, and financial performance. *Financial and management system covenants* usually address such specific problems as selling and marketing practices, inventory control, installation and operation of accounting and costing systems, control of labor and material costs, strategic and financial planning, budgeting systems, etc. *Financial performance covenants* are designed to: (i) support socioeconomic development; (ii) promote financial viability, satisfactory financial performance and prudent financial management of an enterprise; (iii) development of local capability to manage without external assistance not only under normal business conditions, but also in adverse operating or trading circumstances; (iv) assist the enterprise to achieve a creditworthy status to facilitate acceptance in capital markets; (v) protect the borrower's and ADB's financial interests; and (vi) provide a basis for monitoring by regulatory agencies of government, and ADB, of the financial performance of the enterprise. These are largely complementary objectives, but trade-offs may be required between financial and socioeconomic considerations.

3.6.1.3. There is frequently a need for a public sector enterprise to provide services to lower income groups at or below the financial or economic cost. This raises issues of whether an enterprise and a sector should be responsible for cross-subsidization; whether the government should finance the costs through subsidies either to the enterprise or directly to the beneficiaries; and whether the enterprise should be allowed to set lower financial targets which recognize the inability of certain users to meet actual and/or marginal costs. In the latter case, the setting of lower financial targets should not normally be acceptable. If the financial targets are correctly designed their lowering can only risk the future reliability of the enterprise to provide a quality of service or product to all consumers. Such issues must be resolved as part of project preparation and discussed in the RRP. Because financial performance indicators are used as the basis for measuring the foregoing, it is essential that the most appropriate indicator(s) be selected for each covenant for each project and enterprise.

3.6.1.4. The financial analyst and the project designers should ensure that, to the extent possible, financial systems covenants and financial performance covenants are complementary. They should be viewed as a comprehensive package designed to achieve an integrated financial performance by the enterprise's management.

3.6.1.5. A list of the proposed financial performance covenants, which have been subjected to sensitivity analyses (see section 3.5.4), should be provided together with the RRP.

3.6.1.6. Finally, to be consistent with a government's socioeconomic objectives, before the final formulation of financial performance requirements and of the related covenants, appropriate cost recovery principles and efficiency improvements, and the fiscal impact and distributional effects must have been weighed by the appraisal mission, particularly by the financial analyst.

3.6.1.7. Some indicators and covenants, such as a dividend limitation covenant, which are discussed in the following sections, are less extensively used by ADB than by other lenders. However, to ensure that a financial analyst is well informed on their construction and use, they also are described in the loan covenant section.

3.6.1.8. Whenever a date or month is needed in each of the succeeding model covenants, it is to be understood that an appropriate date or month should be inserted. This is to ensure that the review is conducted no later than the end of the first quarter of a fiscal year and such review should be in respect of the fiscal year in which the review is conducted and the succeeding year.

3.6.1.9. In cases wherein the borrowers may not have absolute control or discretion over the level of tariffs or where an independent regulator regulates the sector, operating covenants serve the same purpose. However, in addition to making applications to the regulatory authority to increase tariffs and charges, the enterprise may need to take alternative measures (such as tighter controls on operating expenditures) in order to meet such covenants.

3.6.2. Operating Covenants

3.6.2.1. Introduction to Operating Covenants

3.6.2.1.1. To assist the governments of its member countries in the efficient management of scarce resources, including the mobilization of revenues and savings, ADB recommends to borrowers that their public and private sector revenue-earning enterprises be required to meet a "reasonable portion" of their investment requirements from internally-generated

funds. Definitions of “reasonable portion” will vary between countries and sectors, frequently based on a government’s policies for public sector EAs. It will also be dependent on the latest performance of the EA, particularly if its current financial performance is inadequate to support its operations, when the “reasonable portion” may need to be substantially increased above current performance.

3.6.2.1.2. The principal legal instrument through which ADB seeks to assure such a financial performance of a revenue-earning enterprise is a form of “operating covenant”. The two principal forms of operating covenants are the Rate of Return and the Self-Financing Ratios. Each specifies the minimum annual financial performance to be achieved by a public sector enterprise in terms of either the rate of return on invested capital, or the contribution to investment requirements to be generated from the enterprise’s operations.

3.6.2.1.3. Competition has been limited in the market(s) in which such enterprises operate (although there is evidence of an opening of many of these markets, at times as a result of related ADB projects or programs in the same sector). Levels of output prices may be adjusted by the enterprise’s management board (for example, Public Boards of Management for Electric Power) or the Government may control or regulate tariffs and charges through the concerned sector ministry, the Ministry of Finance or the Cabinet. In such cases, operating covenants serve to require a management board or a government to authorize tariffs and prices that provide for a satisfactory financial performance by the EA or enterprise. Where an independent regulator regulates the sector, the enterprise and/or the government may not have the same degree of discretion to adjust output prices or tariffs and charges. In such cases, operating covenants serve the same purpose, but the enterprise may need to take alternative measures (such as tighter controls on operating expenditures) in order to meet such covenant, in addition to making applications to the regulatory authority to increase tariffs and charges.

3.6.2.1.4. When the performance of the EA has been very poor, forms of operating covenants used include the operating ratio covenant, or the break-even covenant. Depending on the ratio specified, the operating ratio covenant may serve a variety of financial objectives, but it is usually limited in its application, for example, ensuring that earnings would at a minimum cover operating expenses including depreciation and, to the extent possible, debt service requirements in excess of depreciation. The break-even covenant has similarly limited objectives intended to ensure the continued operating capability, solvency and financial viability of the public sector enterprise. It is used where internally generated funds are not expected to contribute significantly to investment.

3.6.2.1.5. Operating covenants should contain provisions for periodic reviews by the enterprise of the actions required to achieve compliance and for furnishing the results

of such reviews to ADB. Such reviews should be made at least annually before the beginning of a fiscal year to permit the enterprise to take timely action. In some cases where financial information is late in delivery, such reviews would need to be made on the basis of firm estimates and the specific forecasts noted for revision when final data is available. In highly inflationary economies, more frequent reviews (e.g., quarterly) may be needed.

3.6.2.2. Rate of Return Covenant

3.6.2.2.1. Under the rate of return covenant, an enterprise affirms that it will take all actions necessary, including changes in its tariffs, rates and charges, for its revenues each year to cover operating expenses and taxes, if any, and to earn an agreed return on its invested capital. Section 4.4.6.2 provides guidance on the application of this covenant and a model covenant is provided in Knowledge Management (see section 7.12.1).

3.6.2.2.2. This covenant is most frequently applied to public sector enterprises constructing and operating projects in the sectors, which embrace agribusiness, electric power, ports, telecommunications, gas or fuel pipelines, water supply and sanitation. The rate of return covenant is generally less suitable for sanitation and sewerage projects, because they have considerable difficulty in generating surpluses for investment or reserves and therefore these projects are normally combined with those of water supply as part of a water supply utility enterprise operation.

3.6.2.2.3. Competitive factors bear significantly on the financial performance of industry (including oil and gas), therefore a specific rate of return covenant is used infrequently in this sector; instead, a less precisely defined form of the rate of return covenant, the general price covenant (see next paragraph), is usually used.

3.6.2.2.4. For railways, the rate of return on invested capital may be used but a commonly used covenant is the operating ratio.

3.6.2.3. Self-Financing Ratio Covenant

3.6.2.3.1. A self-financing ratio covenant, a model of which is provided in Knowledge Management (see section 7.12.2), directly addresses the need for sufficient internal cash generation to finance consistently an agreed proportion of investment requirements. Section 4.4.6.3 discusses the application of this covenant.

3.6.2.3.2. It is often used when a more direct approach to addressing cash generation requirements is considered desirable. Borrowers often favor the covenant because it is more readily understood, particularly by politicians and administrators; it is less costly to put in place and maintain; it avoids setting aside funds which may occur with the rate of return covenant, but

it may be manipulated. This latter action may arise if a borrower deliberately decides to match its annual investment plans to whatever level of net revenues becomes available, in order to comply with the covenant. As an example, a borrower required to contribute 20 percent per annum to its investment program from internally generated revenues, can comply by financing \$100 million from \$20 million internally generated revenues, but is similarly in compliance by financing only \$25 million of investments with \$5 million of revenues.

3.6.2.3.3. Despite the selection of an extended review period (three years) as the base for determining investments, the objective of the covenant can be avoided by a borrower failing to implement acceptable levels of annual investments, with the result that the revenues required to be generated internally can be allowed to fall correspondingly. The significant and likely impact of this default is a failure by the borrower to expeditiously execute the project, directly due to the reduction of the level of investment agreed between the borrower and ADB in the project implementation and financing plans.

3.6.2.3.4. A further problem associated with determining the self-financing ratio for a covenant is the often-uneven nature of investment programs (i.e., the pattern of investments can vary widely from year to year). A three-year investment pattern for a public sector enterprise could be \$10 million, \$77 million, and \$12 million. Such a program with a three-year moving average would show for that period an average of \$33 million. If the borrower was required to raise 30 percent from internally generated revenues annually, the result would be a surplus in year one of \$23 million, a shortfall of \$21 million in year two, with parity arriving only in year three. Under these circumstances it may be difficult for a borrower to justify politically the raising of charges to yield a very large surplus in year one. While it may forecast to complete \$77 million in year two, this may be treated as a dubious estimate by a government that is hard-pressed for resources.

3.6.2.3.5. This example makes the case for smoothing several years' performances, but does not provide a ready or politically realistic justification for tariff and charges increases for an as yet unaccomplished investment program.

3.6.2.4. General Price Level Covenant

3.6.2.4.1. The model covenant provided in Knowledge Management (see section 7.12.3) illustrates the possible formulation of this type of covenant, the drafting of which should be carefully adapted to the circumstances of the particular project. The main purpose of the covenant is to set forth the agreed criteria applicable in determining prices, and to provide for consultation with ADB. Because it is not feasible to be precise, the criteria should be expressed in general terms.

3.6.2.5. Operating Ratio Covenant

3.6.2.5.1. An operating ratio covenant requires a public sector enterprise to set its tariffs and rates at levels that meet a specified operating ratio test (see section 3.6.1.9). The covenant may also state a minimum reduction in the operating ratio to be achieved by a specified date, as part of an agreed effort to improve operating efficiency and, in some cases, eliminate uneconomic services. Section 4.4.6.4 discusses the application of this covenant and a model is provided in Knowledge Management (see section 7.12.4).

3.6.2.5.2. This covenant is normally used only where it is not feasible to use a rate of return or cash generation approach – for example, for an entity which has been incurring substantial operating losses and whose objective is to eliminate such losses. It may also be used for a revenue-earning entity that is likely to be restricted by government from generating appropriate amounts of capital for future expansion purposes. It is usually necessary to supplement an operating ratio covenant with agreements by the concerned government to provide necessary funds to offset operating deficits until they are eliminated, to cover any deficiencies in meeting debt service obligations, and to assist in financing capital needs.

3.6.2.5.3. A variant, the working ratio covenant is sometimes used to emphasize the degree of coverage of cash operating expenses. It excludes depreciation and similar non-cash items from expenses.

3.6.2.6. Breakeven Covenant

3.6.2.6.1. A breakeven covenant is designed to achieve financial viability in its most limited sense. There are two breakeven variations: revenue (accrual) breakeven; and cash breakeven. This section, and the model covenant, refers to the former variation. The covenant requires the entity to take all measures necessary, including adjustments in its rates, for revenues to cover operating expenses, adequate maintenance, taxes if any, and the greater of depreciation or debt service requirements. The objective of this analytical tool is to measure a revenue-earning enterprise's efforts to breakeven, without losses, and without providing any surpluses for investment, dividends, etc.

3.6.2.6.2. This approach is occasionally used for transportation and similar projects that follow the principle of funding their capital requirements predominantly through borrowings or grants, and also receive operating subsidies. It is infrequently used for the public sector, and is unlikely to be used for private sector projects. It compares the total revenues of an enterprise to the operating expenses plus the amount by which debt service requirements exceed the provision for depreciation.

3.6.2.6.3. The major risk in the use of this tool is that the borrower/EA may become complacent if a break-even is achieved, and will fail to pursue more aggressive revenue-earning policy to provide for the gradual removal of all subsidies. This tool should not be introduced without a detailed justification at fact-finding, and in the RRP. A detailed breakeven analysis, displaying the effects of changes in volume on the breakeven point(s), and on profitability and cash flows should be developed.

3.6.2.6.4. The RRP should include a forecast of when a self-financing ratio should be introduced, and if debt service is not being met completely, or at all, the steps which the government and the enterprise propose to take to recover debt service from consumers through the charging system(s) of the enterprise.

3.6.2.6.5. Section 4.4.6.5 discusses the application of this covenant and a model is provided in Knowledge Management (see section 7.12.5).

3.6.3. Capital Structure Covenants

3.6.3.1. Introduction to Capital Structure Covenants

3.6.3.1.1. ADB uses four capital structure covenants; (i) debt service-coverage ratio; (ii) debt-equity ratio; (iii) absolute debt limitation; and (iv) capital-adequacy ratio. These covenants shape the capital structure by limiting the debt that may be incurred in relation to annual cash flows, the amount of equity capital, or absolute annual amount.

3.6.3.1.2. The capital-adequacy ratio covenant seeks to ensure that the equity of a financial institution will at least be adequate to meet its losses. Some form of debt limitation covenant, usually either the debt service coverage or debt-equity ratio, should be used for projects involving revenue-earning entities. The debt limitation covenant complements an operating covenant to provide assurance that fixed debt service obligations will be met even when the broader financial objectives of the operating covenant are not.

3.6.3.1.3. Where an operating covenant is not appropriate, the debt limitation covenant serves as the main covenant promoting financial viability. Exceptions to the use of both types of covenant would be where an entity is financed predominantly through borrowing, and earnings may reasonably be expected always to be sufficient to meet debt service obligations; for example, where a public utility project, usually in the water supply or sewerage sector, funds virtually all of its capital requirements through borrowings and its financial performance is regulated by a breakeven covenant.

3.6.3.1.4. When dealing with entities that are likely to pay dividends, it may be advisable to use a dividend limitation covenant to complement a debt limitation covenant.

3.6.3.1.5. Capital structure covenants serve to assure the continued solvency and financial viability of revenue-earning enterprises by imposing prudent limits on their long-term borrowing. If an EA does not incur debt after entering into such a covenant, or refrains from further borrowing after a period of compliance with the covenant, even though the performance criteria agreed to in the covenant subsequently may not be complied with, (for example if the debt service-coverage ratio falls below 1), the EA is not in default of the covenant until it again commences to incur debt.

3.6.3.1.6. The limits of a covenant should be set so as to enable debt service obligations to be met under adverse as well as normal business conditions, taking into account business and financial risks.

3.6.3.1.7. The distinction between debt and equity is not always clear. For instance, preference shares have many characteristics of debt while convertible notes might be treated as equity. Furthermore, derivatives and other financial instruments add layers of complexity. To this end – for the purposes of formulating covenants – a cautious approach should be taken by including any difficult-to-classify instruments in the definition of debt.

3.6.3.2. *Short-Term Debt and Financing Leases in the Capital Structure*

Short Term Debt

3.6.3.2.1. ADB's standard definition of the term "debt", as applied in the design of capital structure covenants, is any indebtedness of the borrower maturing by its terms more than one year after the date on which it is originally incurred. This limits the application of the covenant to what is usually referred to on a balance sheet as long-term debt, and it excludes short-term debt usually shown on a balance sheet as part of current liabilities – though current maturities of long-term debt are part of current liabilities, by definition they are part of the long-term "debt" covered by capital structure covenants. This exclusion is appropriate when short-term debt is incurred as a source of working capital, since any limitation on such uses that is considered necessary can be covered by a liquidity covenant (see section 3.6.4). However, if the current portion of long-term debt is included in the definition of debt for purposes of a capital structure covenant, it should still be retained as a current liability for purposes of a liquidity covenant.

3.6.3.2.2. Consideration should sometimes be given to the need to refine the definition of "debt" or to use a supplementary covenant to cover some short-term loans that are: (i) being continuously rolled over, or (ii) used as "bridging funds" pending receipt of the proceeds of sale of equity or long-term debt. In the former case, if the amounts involved

are likely to be significant, they should be included within the definition of debt covered by the covenant or be covered by a complementary limitation on short-term debt. In the latter case, the need will depend on the judgment as to the likelihood and timing of the replacement by long-term debt or equity. When in doubt, the overall objective should be used as a guide; viz., if the borrower's recourse to long-term debt needs to be restrained, no alternative facility in the form of short-term debt should be admissible, unless suitably defined, categorized and counted in part, or in total, as long-term debt for purposes of the covenant.

Financing Leases

3.6.3.2.3. Some institutions use finance leases to acquire the use of assets; the final ownership of the asset being dependant upon the terms of the lease.

3.6.3.2.4. A finance lease effectively places all the risks upon the lessee, and therefore it is reasonable to interpret the existence of such a lease and its associated lease payments as debt and debt service respectively, for purposes of the capital structure of EAs with which ADB works. Therefore where an EA has entered into, or proposes to enter into finance leasing agreements, the value of the lease and the annual lease payments should be included in the capital structure and the debt servicing requirements of the agency for purposes of covenants in loan agreements.

Restricting the Use of Loan Funds

3.6.3.2.5. Capital structure covenants have the inherent limitations that although they are primarily intended to constrain the amounts of borrowing, they do not regulate the use to which any permissible borrowing can be put, (nor do they ensure that existing debt will be serviced, if further borrowing is not incurred). Also, planning and implementation of new projects having substantial debt requirements sometimes delay the completion of ongoing projects, by preempting the use of scarce loan resources. If there is substantial concern that a revenue-earning entity is likely to embark on additional projects of questionable merit, a supporting covenant may be needed to restrict the enterprise to investments, which are economically justified and financially appropriate. Such limitations, however, are generally not needed or advisable, and should be employed only exceptionally and usually limited to the implementation period of the project.

3.6.3.3. Debt Service Coverage Covenant

3.6.3.3.1. Models of debt service coverage covenants are provided in Knowledge Management (see sections 7.13.1 and 7.13.2). The two key issues to be decided in

formulating the debt service ratio covenant are (i) whether to base it on historical or forecast earnings, and (ii) what particular ratio to require as the minimum acceptable coverage. A good rule to follow is to allow the enterprise reasonable flexibility in making financing arrangements without requiring ADB's frequent approval for new borrowings. This factor must be balanced against the need to maintain prudent limits on the enterprise's debt service obligations. Section 4.4.7.6 describes the application of this covenant.

3.6.3.3.2. As a general rule, the covenant should be on the historical earnings basis if it is expected that the test could be met on this basis for the reasonably foreseeable future, or that the need to seek ADB approval for an exception would occur no more frequently than about once every several years.

3.6.3.3.3. The forecast basis should be used when it is likely that during a year there would be many occasions for incurring debt obligations, which would otherwise require prior ADB approval. This is particularly relevant for an enterprise that has a large investment program containing many projects, with long implementation periods and a need to arrange many borrowings to finance the program. It may also be advisable to use the forecast basis in highly inflationary conditions to ensure that tariffs and rates are moved in concert with interest rates.

3.6.3.3.4. A ratio typically recommended for this covenant is 1.5, but it can vary from as low as 1.2 to as high as 2.0 or more depending on industry averages, or how stable or cyclical the earnings of the EA are judged to be. Where business risks are similar the appropriate ratio would be lower when using historical earnings than with forecast earnings. However, it is essential that the financial analyst be prepared to justify the ratio recommended, particularly the excess requirement over 1.0. Any "mark-up" over 1.0 must be quantified in terms of the amount it is estimated to provide, and the proposed application of the funds, (working capital, reserves, investment purposes, dividends, etc). It is not sufficient to either select a "comfortable" or non-controversial figure, or to continue using a ratio already in a legal agreement for previous operations of the borrower. Section 4.4.7.6 describes the application of Version A (Historical orientation) and Version B (Forecast orientation) of the Debt Service Covenants.

3.6.3.3.5. Capital structure covenants have a limited use, in that they are not intended to perform as revenue-generating covenants. They serve only to restrict the borrowing capacity of EAs. The debt service coverage ratio covenant may be adapted to include a forecasting provision that would require an EA to institute mandatory adjustments to tariffs, or rates (if within its discretion, or to make the necessary applications for increases, if not). ADB staff should seek the advice of OGC before discussing with a borrower/EA the possible application of such a modified capital structure covenant.

3.6.3.4. Debt: Equity Ratio Covenant

3.6.3.4.1. The debt-equity ratio covenant is simple to understand and administer, and is consistent with the need to maintain a sound capital structure without unduly restricting the entity's ability to make its own routine financing decisions. It is pertinent to note that for this form of covenant, debt need not be defined in the same way as for the debt service coverage covenant. For the latter, the definition applies to the entire amount of the long-term debt, and the applicable debt service obligations, as of the date of signing the contract for the debt. Section 4.4.7.7 describes the application of this covenant and a model is provided in Knowledge Management (see 7.13.3).

3.6.3.4.2. For the debt-equity ratio, the definition of debt may be framed in terms of debt outstanding. This provides the entity some flexibility in phasing additions to its equity capital to match the timing of expected drawdowns of debt.

3.6.3.4.3. Defining debt in terms of the amount outstanding is appropriate for the debt: equity ratio covenant only when it is deemed feasible for an enterprise to apply the test each time it intends to draw down debt and, when necessary, call on its shareholders for additional equity capital before the increase in debt outstanding. This is most likely to be the case for financial intermediaries, which can generally limit their commitments to lend funds to the availability of resources in hand. Application of the drawdown concept is likely to be inappropriate in other sectors where use of borrowed funds cannot readily be interrupted if there is a failure to meet a debt limitation test for a particular drawdown of a loan. For similar reasons, application of the drawdown concept is generally not appropriate or feasible under the debt service coverage test.

3.6.3.4.4. The debt: equity ratio covenant is occasionally used for established entities when the borrower has overriding objections to the use of a debt service coverage covenant. Since the major shortcoming of the debt: equity ratio covenant is that it disregards the terms and conditions of the debt and their impact on the debt service burden, it may be advisable when using this form of covenant to add a limitation on medium-term debt; e.g., limiting the amount of debt incurred with a term of issuance of less than ten years to some ten or fifteen percent of total capitalization.

3.6.3.5. Debt Limitation Covenant

3.6.3.5.1. An absolute debt limitation covenant limits the amount of debt that may be incurred annually to a stated amount (expressed in absolute terms or as a proportion of the total capitalization) and requires ADB concurrence before exceeding this limit. This covenant is used infrequently and only where debt service coverage or debt-equity covenants cannot be applied. Consequently no example is provided, as each

covenant should be uniquely drawn. Section 4.4.7.8 describes the application of this covenant.

3.6.3.5.2. The typical case when this covenant is used involves a public authority whose capital structure consists entirely or predominantly of debt, because of statutory requirements that all externally provided investment funds be advanced in the form of borrowing from government.

3.6.3.5.3. The limit for new debt is fixed at a relatively small amount which together with the internally generated funds which are likely to be available, allows the borrower to carry out minor plant replacements or improvements, but which requires the borrower to consult with ADB whenever it plans a major expansion.

3.6.3.5.4. Although this form of covenant is simple to administer, it has substantial disadvantages. It is related to a stated amount of debt without consideration of its terms and without taking into account changes in an enterprise's financial requirements or debt servicing capacity; and it severely restricts an enterprise's freedom of action.

3.6.3.5.5. A preferable approach would be to agree that a substantial part of any loan by the government to the public sector enterprise would be subordinated and treated as quasi-equity capital, thus permitting the use of either the debt service coverage or debt equity ratio covenants. The project team should ensure that it is legally possible to create a subordinated debt. There may be restrictions or regulations of the government, which affect its ability to have its debt treated as quasi-equity.

3.6.3.6. Capital Adequacy Ratio Covenant

3.6.3.6.1. This covenant is normally applied to financial institutions (FIs). It is used to compare the adequacy of an institution's available equity to meet losses that may be incurred by losses of financial assets. For this purpose, equity is defined in a similar manner as in the debt-equity ratio covenant, but with the addition of any provisions for bad and doubtful debts (loss provisions). However, the definition of assets will need to be defined on an institutional basis. Section 4.4.7.9 describes the application of this covenant and a model is provided in Knowledge Management (see 7.13.4).

3.6.3.6.2. Local market and lending conditions will materially affect the quality of assets and staff must reach agreement with the borrower on the risk factors applicable to each class of assets.

3.6.3.6.3. This classification of risk by reference to groups of assets-at-risk may need to be varied over the life of a loan, and therefore it will be necessary to introduce regular

reviews to determine any required revisions from time to time. In addition, judgment will be needed to determine a safe margin above the potential loss level of assets-at-risk prescribed in the covenant. Normally this is unlikely to be less than 1.00, when equity will at least absorb all potential losses, as calculated in accordance with methods specified in minutes to loan negotiations.

3.6.4. Liquidity Covenants

3.6.4.1. Introduction to Liquidity Covenants

3.6.4.1.1. Liquidity covenants are intended to assure that an enterprise maintains sufficient working capital (i.e., an excess of current assets over current liabilities) to meet its current obligations in a timely manner and conduct its operations effectively, without financial constraints.

3.6.4.1.2. Their limitations are that the data used for the ratio is a “snapshot” figure, usually as at the end of a fiscal period – and, as such, are capable of manipulation. They are generally used only when working capital requirements are significant, as in the case of most industrial and agro-industrial projects, where the enterprise’s management may use limited resources to fund capital expenditures to the detriment of operating expenses. By contrast, these covenants are not normally needed in projects where working capital needs may be relatively small, such as utilities and railways.

3.6.4.1.3. The cash needs of such projects are adequately covered through operating covenants, supplemented, as necessary, by other covenants dealing with working capital issues, such as timely collection of accounts receivable.

3.6.4.1.4. The Current ratio and Quick ratio covenants require the borrower to maintain a specified minimum liquidity ratio and to undertake corrective actions if the actual ratio falls below the prescribed level. The quick ratio covenant excludes the cost of inventories at the date of the balance sheet.

3.6.4.2. Current Ratio Covenant

3.6.4.2.1. The advantages of the current ratio covenant are that: (i) it is simple and easily understood by borrowers; (ii) it is based on an accurate and objective test; (iii) it can be based on readily defined accounting principles and calculated from standard financial statements; and (iv) in most cases it provides a fair representation of short-term solvency of the borrower. Section 4.4.8.2 describes the application of this covenant and a model is provided in Knowledge Management (see 7.14.1).

3.6.4.2.2. However, this covenant will only be an adequate test of liquidity if the covenant design provides for: (i) periods of falling sales and consequent declining internal cash generation, when the borrower may find it difficult to convert inventories to cash at reasonable prices; (ii) a suitable analysis of inventories, because some items may be non-saleable (for example, they may be spare parts or obsolete products not written off) and because a minimum level of inventories must be retained to continue operations; and (iii) a suitable analysis of accounts receivable; and seasonal variations in working capital requirements and interim peaks for debt maturities during the year. These problems, although serious in some projects, can be overcome either by making appropriate allowances when determining the acceptable ratio, or by using the quick ratio test. The borrower should be asked to calculate and confirm compliance with the current ratio at intervals throughout the fiscal year (e.g., in quarterly or semi-annual reports; or whenever requested by ADB).

3.6.4.2.3. This covenant requires consistent and close monitoring to ensure that unacceptable management and accounting practices are not being followed to give the appearance of compliance. For example, accounts receivable may be overstated because of inadequate provisions for bad debts.

3.6.4.2.4. In some instances, it may be necessary to introduce supporting covenants that specifically address such key issues as the size of short-term debt, or levels of inventories and receivables.

3.6.4.3. Quick Ratio Covenant

3.6.4.3.1. The quick ratio covenant is similar to the current ratio covenant, except that inventories are excluded, to focus on the most liquid items in the financial statements. Section 4.4.8.2 describes the application of this covenant and a model is provided in Knowledge Management (see 7.14.2).

3.6.4.3.2. It gives a much clearer view of the “cash” position of the enterprise. After taking that benefit into account, this covenant still has the shortcomings associated with the current ratio.

3.6.4.3.3. While any selected covenant must be framed to reflect the objectives of the borrower and the project, it is probably desirable when a decision has to be made between the current and quick ratios, to select the latter and to require at least a three-monthly submission of information; and introduce a performance covenant to address control of inventories. In this way the cash position can be examined closely and regularly.

3.6.4.4. Dividend Limitation Covenant

3.6.4.4.1. The dividend limitation covenant with a dividend limitation test prohibits the borrower from declaring a dividend the payment of which would cause the current ratio (or quick ratio) to fall below a specified minimum. Section 4.4.8.3 describes the application of this covenant and a model is provided in Knowledge Management (see 7.14.3).

3.6.4.4.2. The minimum level of current ratio specified in this covenant may be higher than the minimum required under the current ratio covenant discussed in section 3.6.4.2 because decisions on whether to pay dividends are often discretionary, and a stricter standard of prudent financial management can thus be applied to this context. Therefore, the borrower is asked not to make voluntary payouts of cash to its stockholders until it has taken further measures to establish and maintain the liquidity essential for operations.

3.7. ADB Reports

3.7.1. Introduction to ADB Reports

3.7.1.1. A financial analyst has the responsibility to ensure that ADB's reports and documentation relating to a project, from its inception through to its evaluation, represent the facts and best professional judgments of the analyst with respect to all aspects of financial management, financial appraisal, accounting, financial reporting and auditing with respect to the project, the EA, the borrower, and all concerned organizations and persons.

3.7.1.2. The objective is to ensure that the cycle of investment lending is well documented throughout, with adequate justifications for all actions to be taken or actually taken.

3.7.1.3. Given the wide range of lending operations and the variety of borrowers, their institutions and the actual projects, it is inevitable that from time to time, some innovative documentation may be necessary to describe and justify procedures undertaken.

3.7.2. The Project Preparation Report

3.7.2.1. A critical element of preparation is identifying and comparing technical and institutional (and financial) alternatives for achieving the project's objectives. Preparation typically requires feasibility studies that identify and prepare preliminary designs of

technical and institutional alternatives; compare respective costs and benefits; and examine the most viable option from technical, financial, and economic viewpoints.

3.7.2.2. Although this section refers to financial analysts, many of the financial assessment tasks should be undertaken as part of the PPTA. As such, the financial analyst must thoroughly review the PPTA TORs to ensure that they reflect these requirements.

3.7.2.3. For the financial analyst, in order to contribute to the RRP, this means researching possible first-stage project costs, working with technical experts to prepare cost estimates (including rough contingencies) and preparing initial cost analyses. To support this work, the financial analyst should review the prospective EA's capacity to develop and maintain adequate project/EA accounts, and the availability of suitable auditing skills to provide timely audit reports and opinions.

3.7.2.4. If the preliminary review indicates that the project appears "bankable" and addresses sector priorities, the necessary data to support detailed technical, financial, and economic analyses of alternative options should be collected and analyzed. This step should identify a preferred option, for which an indepth feasibility analysis will be conducted and a preliminary project design prepared. The preliminary design will be reviewed by ADB staff and, when finalized, will provide the basis for design studies. ADB staff will appraise these studies. It is important for ADB to ensure that the preparation report format conforms to the RRP format and contains all information required for appraisal.

3.7.2.5. To assess the viability and sustainability of the project, internal ADB reviewers (that may include a Management Review Meeting (MRM) and a Staff Review Committee (SRC)) will, among other things, examine and consider: (i) the realism of the project cost estimates; (ii) the realism of the financing plan (which must indicate the contributions of the beneficiaries, ADB and the cofinanciers, if any); (iii) the soundness of the proposed accounting and internal control procedures; (iv) the workability of organizational arrangements for project implementation, as well as monitoring and evaluation mechanisms; and (v) the realism and implications of the financial, economic and risk analyses.

3.7.2.6. In cases where the borrower has asked ADB (or other agencies) to assist in project preparation, the financial analyst's responsibilities will depend on the skill and experience of those who have prepared the project's financial aspects. At a minimum, the analyst is expected to ensure that all issues are examined comprehensively and that proposed solutions are realistic, and to report accordingly.

3.7.3. Report and Recommendation of the President (RRP)

3.7.3.1. RRP Contents (Project Loan)

3.7.3.1.1. The following table sets out the contents of an RRP (for a project loan) with explanations of the financial aspects. The Knowledge Management section of these Guidelines provides a general checklist for reviewing the financial aspects of an RRP (see section 7.6).

- I. THE PROPOSAL
- II. INTRODUCTION
- III. BACKGROUND
- IV. THE PROPOSED PROJECT
 - A. Rationale
 - B. Objectives and Scope
 - C. Technical Justification
 - D. Cost Estimates

Section 3.4.3 provides guidance on preparing project cost estimates. These should be presented in this section in summary form. Additional details should be provided in an appendix.

- E. Financing Plan

Section 3.4.6 provides guidance on preparing the financing plan. It should specify the amounts of the foreign exchange and local currency costs financed by ADB, the government, and other agencies, including in-kind contributions by beneficiaries, if any. Indicate provisions for contingencies, the nature of the government's contribution, and the government's assurance concerning any shortfall in the finances required. Provide reasons for changes, if any, from ADB's guidelines. Mention any cofinancing arrangement (concluded or expected). Indicate (in the appendix) the magnitude of physical contingencies as percentage of the base costs and of the inflation factors used for both the foreign exchange and local currency costs in estimating price contingencies.

Justify why local cost financing exceeds the percentage limits for the country concerned, based on country and project considerations. Include other standard references to the borrower of the loan, the maturity and grace periods, as well as the lending rate.

- F. Implementation Arrangements
- Describe the following features and other related aspects of project implementation according to the relevant OM sections: (i) procurement; (ii) consulting services; (iii) disbursement policies; (iv) reports, accounts, and audit (including the project completion report); (v) retroactive financing (including its justification); (vi) benefit monitoring and evaluation (BME); and (vii) lending and relending policies. Minimize routine details in the main text, but explain special features, particularly departures from the norms, if any. Give tabular presentations with brief descriptions, where appropriate.
- G. The Executing Agency
- Where ADB has previously lent to the EA, information on compliance with financial, audit and any operating covenants should be provided. Subsequent analyses in the Chapter should emphasize comparisons of covenanted forecast performance with actual performance. Assess the EA's past record in project implementation (where applicable), especially its involvement in ADB-assisted projects and its capability with regard to the project. Give particular attention to institutional capability in the case of a sector loan proposal. The assessment of the institutional capability in Chapter III (Background) should demonstrate that appropriate sector policies and institutions are, or will be, in operation. Analyze the EA's capacity in this section. Give a detailed description of an EA only when it is engaged in an ADB project for the first time, when it is the beneficiary of institutional strengthening measures, or when it is the borrower. Otherwise, briefly describe the EA's capability in the main text, and provide details on its strengths and weaknesses and its financial evaluation in an appendix. The appendix may include an organization chart. Where applicable, give a detailed financial evaluation of the EA. When TA is provided to address an EA's institutional weakness, provide a brief statement on the need addressed, with a cross-reference to the more detailed description of the TA under the Technical Assistance subhead in this chapter.
- H. Environmental and Social Measures
- I. Technical Assistance
- J. Policy Issues

V. PROJECT JUSTIFICATION

A. Financial and Economic Analyses

Focus on general financial and economic analyses without repeating information from Background, Rationale, or Technical Justification. Give a realistic assessment of the “with” and “without” project situations. Follow the standard ADB methodology for financial and economic analysis and for sensitivity and risk analysis. Where applicable, compare the projected financial and economic internal rates of return with those achieved in similar projects post-evaluated by ADB.

The various project risks and related issues should be addressed in this section. Risk analysis need not be confined to data assumed in the economic analysis. Institutional or other constraints will also constitute a risk that should be addressed by the project and discussed after Implementation Arrangements.

B. Environment

C. Social Dimensions

D. Impact on Poverty

E. Risks

VI. ASSURANCES

VII. RECOMMENDATION

APPENDIXES

Cost Estimates

Financial and Economic Analyses

Financial Statements (of public utilities, incorporated companies, and other entities)

3.7.3.2. Past Financial Performance

3.7.3.2.1. Whenever the borrower or EA of a proposed loan is an existing agency, its past financial performance should be analyzed for at least the most recent two completed fiscal years, preferably based on audited financial statements for those years. The text discussion should note significant conclusions reached on past financial performance and the factors contributing to satisfactory or unsatisfactory results. Detailed analysis should center on any problem areas in the financial statements – balance sheets, income statements and cash flow statements.

3.7.3.2.2. For textual presentations, a financial summary table for the balance sheets, income statements and cash flow statements is often the most useful and space-saving

form. However, separate summary tables are acceptable, particularly when used to reinforce a specific discussion in the text. These statements, where presented in the text in summary table form, should cover a period long enough to give an adequate picture of recent financial performance. In most cases, this will be two or three years, based on audited accounts for the fiscal years concerned.

3.7.3.2.3. For repeat borrowers/EAs, the period should cover from the date of signing of the last loan to the date of Fact-Finding and appraisal, with a table to show actual performance with the forecast in the previous RRP.

3.7.3.2.4. The subject headings in the summary tables may vary depending on the type of project and the particular focus of the text discussion. In general, however, the tables should highlight important relationships regarding the financial structure of the enterprise, its ability to generate funds, and its profitability.

3.7.3.3. Present Financial Condition

3.7.3.3.1. An EA's current condition may warrant separate discussion in the text, or may be described when referring to the past financial condition. If the analysis of the present financial condition is based on current budgets and not on confirmed actual performance, the report should comment on the validity of the data used. If these data are likely to form the basis for financial forecasts during the project period and thereafter, and if the analyst is unable to obtain firm knowledge of the present financial position, the projected data should be subjected to sensitivity analysis, using, as far as possible, data on confirmed past performance as bases for measuring and forecasting.

3.7.3.3.2. The discussion of the present financial position should highlight the strengths and weaknesses of the EA's finances and its performance of relevant activities. The reasons for weaknesses should be fully discussed along with proposed remedies for resolving these.

3.7.3.3.3. If necessary, requisite performance and remedial undertakings should be sought in financial covenants with staff judgments on the potential effectiveness of such remedies explained in the text.

3.7.3.4. Cost Recovery and Profitability

3.7.3.4.1. Where cost recovery and/or profitability are primary objectives, the financial consequences of policies, strategies, and practices relating to the entity's operations or trade should be set out, for instance: (i) policies on recovery of costs of its products and/or services; (ii) the tariffs and charges levied; (iii) the systems of establishing costs of

products and/or services; (iv) inventory controls; and (v) the possibility and extent of external regulation (e.g., by government).

3.7.3.4.2. Discussions of detailed costs, cost recovery and detailed revenue yields should be designed to support the overall financial analysis and any special issues, such as marginal cost pricing, which may be presented elsewhere in the report.

3.7.3.5. Other Strengths and Weaknesses

3.7.3.5.1. Finally, this section of the report should review any aspects of an EA's current financial affairs not discussed elsewhere. These could include: (i) financial management and accounting systems or financial reporting and auditing procedures to the extent that they are not reviewed in the implementation chapter; (ii) financial relationships between the borrower, the EA, and other involved EAs; (iii) financial aspects of an agency not reviewed and the reasons for their exclusion; or, (iv) in the case of a recently-established agency, the staff's judgment on the feasibility and reliability of a borrower's proposals for financial operation of the EA.

3.7.3.6. Future Financial Performance

General Content

3.7.3.6.1. This review may begin with an analysis of the financing plan for the project and the EA's operations and investment program over the project period. Irrespective of the presentational style of the section and the sectoral format used, the substantive discussion should focus on the agency's estimated future earnings and financial position.

Financing Plan

3.7.3.6.2. A principal objective of financial analysis is determining the adequacy of a financing plan. The summarized content of these plans should be consistent with data in the cash flow statement.

Projected Financial Forecasts

3.7.3.6.3. Projected balance sheets, income statements and cash flow statements of the EA should be shown in summary tables, so as to permit comparisons between past and forecast data and to allow for ready identification of trends. The data should be consistent with demand and disbursement forecasts elsewhere in the report. Forecasts should normally be made for a period covering the duration of project construction up to at least the end of the third year of normal capacity operations. The aim is to provide adequate

data on the profitability and debt servicing ability of the enterprise in relation to the investments to be undertaken under the project.

3.7.3.6.4. Forecasts should normally be made until a “steady state” has been reached, reflecting normal utilization of project facilities. If a substantial financial change is forecast within the life of the loan that would seriously affect the “steady state”, the text should specifically discuss the impact of such a change on the financial condition of the EA. If possible, the projections should be extended to cover such an event; for example, the completion of a delayed and parallel dam-building project for a mixed hydro/coal-burning power utility some seven years after project completion of a coal-fired station, that could reduce the coal consumption until power consumption demand again exceeded the hydro station’s capacity.

3.7.3.6.5. The text should generally discuss: (i) financial objectives of the project and where applicable, the project entity; (ii) future cost recovery/profitability, including assumptions made about physical volumes, prices, tariffs and costs, etc.; (iii) systems of cost recovery, tariff regulations, user charges and credit provision; (iv) ability to meet debt service obligations and to finance capital expenditures; (v) adequacy of future financial position in relation to capital structure (debt as a percentage of total capitalization) and working capital (quick or current ratio); (vi) major risks and uncertainties not discussed in the Economic Analysis discussion which might affect the forecasts presented; and (vii) recommended covenants, action plans and any measures judged necessary for the improvement of financial performance. These might include covenants on minimum levels of earnings, operating cost reductions, or restrictions on the incurrence of additional debt, the establishment of revised or new tariffs, or of targets to be achieved by the borrower.

3.7.3.6.6. Financial criteria to be applied to sub-projects or components that will be appraised and if appropriate, approved after Board presentation of the main project, should be established and discussed the main body of the RRP, and if necessary, detailed also in an Appendix.

Proposed Cost Recovery and Potential Profitability

3.7.3.6.7. In the case of established EAs, this review may continue the discussion of past and present performance. The text should describe the agency’s practices or proposals (either agreed, or to be confirmed in legal agreements) at least during the project period and the early operating period. The discussion of cost recovery should also indicate the expected real increases in costs and the required real increases in tariffs during the forecast period. Any tariff studies to be undertaken should be noted. Justification of the use of subsidies should be mentioned, and a program presented for their reduction or elimination over time.

3.7.3.6.8. Financial objectives, together with an operating covenant or other financial covenants designed to promote their achievement, should be explained. Specific indicators to be used in monitoring financial performance should be explained, if necessary. The performance of comparable institutions in the sector and country should be briefly reviewed to establish any key factors which could affect cost recovery and profitability in case where there is no past performance on which to base projections. In such cases, inputs, outputs and performance estimates will be based entirely on assumptions and targeted performance. It is essential, therefore, to express a judgment on the adequacy and reliability of the factors on which the forecasts are based.

3.7.3.6.9. This section of the RRP should also discuss the impacts on an agency's forecast financial statements of changes to prices and/or tariffs (and related government policies). The rationale for pricing of goods and/or services to be provided under the project and actual or potential government intervention in the price or rate-making process may be relevant to economic analyses and project justification. These may be discussed in the economic analysis section of the RRP.

3.7.4. Miscellaneous ADB Reports

3.7.4.1. Introduction to Miscellaneous ADB Reports

3.7.4.1.1. ADB requires information on the financial performance and status of EAs, and on their financial management, accounting and auditing systems at various times in the project cycle. Typical reference points are: (i) Fact-Finding and appraisal mission Back-to-Office reports with appendixes, including Memoranda of Understanding with borrowers and EAs; (ii) Project Briefs with appendixes; (iii) Management Review Meetings; (iv) Staff Review Committee Meetings; (v) Project Administration Back to Office Reports (vi) PAC Meetings; (vii) PCR and PPAR preparation.

3.7.4.1.2. The structure, format and content of the reports to be made for these meetings and for the permanent record (the Project File) will vary according to the objectives of the particular mission or meeting.

3.7.4.1.3. The Project Administration Instructions (PAIs) provide considerable guidance on the principles and extent of the financial and institutional information required. The following PAIs should be reviewed to ensure that the requisite financial and institutional data are made available as required:

PAI 1.02	Staff Responsibilities for day-to-day Loan Administration	PAI 6.02	Internal Procedures and Reports (Project Inception Mission; Review Mission; and Project Completion Report Mission)
PAI 1.05	Preparatory Supervision Actions – Project Administration Memorandum	PAI 6.03	Internal Procedures and Reports – Reports of Project Administration Missions
PAI 3.02	Procurement	PAI 6.06	Project Administration – Project Administration Reviews
PAI 5.07	Project Administration Activities – Project Cost Overruns	PAI 6.07	Internal Procedures and Reports – Project Completion Report
PAI 5.08	Project Administration Activities – Provision of Local Cost Financing by Borrower		
PAI 5.09	Submission of Audited Project Accounts and Financial Statements		

3.7.4.1.4. The compilation of information, including financial analysis and financial forecasting, for the various meetings and reports listed in this subsection should be based on the advice and guidance provided throughout these guidelines.

3.7.4.2. Project Completion Report (PCR)

3.7.4.2.1. PAI 6.07 governs the preparation of Project Completion Reports (PCRs). PCRs should be prepared by the EA. A final PCR is then prepared in accordance with PAI 6.07. In some cases, PCR preparation may require information and technical expertise from a financial analyst.

4. Financial Management of Executing Agencies

4.1. Financial Management Overview

4.1.1. The primary objective of the financial management process is to optimize financial and economic benefits from an investment. Financial management comprises multiple processes, including financial accounting, management (and cost) accounting, assets accounting, cash and money markets accounting, financial reporting, internal controls and internal audit, with external audit providing a report and opinion on the reported financial status and performance. Each of these processes, including financial management itself, should incorporate subprocesses and techniques, including management, forecasting, strategic planning, planning and budgeting, procurement, disbursements, control and communications.

4.1.2. The objective of this Part of the Guidelines is to assist a financial analyst to examine institutional and systems requirements and to prepare appropriate financial analyses. These are needed to support an investment from its inception through completion, and where necessary, through the life of the loan or credit. In addition this part will also help the analyst define efficient forms of performance measurement for use in monitoring project implementation and obligations undertaken by a borrower.

4.1.3. The general objective of ADB appraisals of EAs and IAs is to ensure that they are technically, managerially and financially capable of efficiently and effectively implementing proposed projects or programs. The specific appraisal objectives are to: (i) develop criteria on which to decide whether institutional capacity (in terms of financial management) is sufficient to justify loan approval; (ii) identify the institution's development needs (in terms of financial management) – both project related and long term – that should be addressed either as a project component or by technical assistance; and (iii) confirm that the financial management system is sustainable.

4.1.4. Together with the parts on Investment Projects, Reporting and Auditing, and Financial Institutions, this part is aimed at providing the financial analyst with a comprehensive view of financial management of projects, based on ADB's Operations Manual and related guidance documents. In addition to this introduction, Financial Management has three parts:

- 4.2 Institutions and Systems This part describes techniques for examining the various institutions and agencies of borrowers, particularly as they impact on the financial management of projects.
- 4.3 Financial Analysis This part describes forecasting and financial analysis in relation to executing agencies.
- 4.4 Measuring Performance This part is mainly applicable to the executing agencies of revenue-earning projects. It describes the financial performance measurements that can be used to assess the performance of the EA in achieving the financial objectives of the project.

4.1.5. Each of the financial management processes and techniques that these Guidelines describe must be tied directly to the physical components and operational elements of the investment project.

4.1.6. ADB appraisal of borrowers, EAs and/or PIUs is not usually necessary where the World Bank has already appraised these clients. In these cases, ADB accepts the World Bank certification unless there is fundamental disagreement, which must be justified with full reasons.

4.2. Institutions and Systems

4.2.1. Introduction to Institutions and Systems

4.2.1.1. The Operations Manual 35 sets out ADB policy with respect to the need for the examination of the EA's financial management systems at project preparation and appraisal. This is to form an assessment of the financial policies and the capacity of the financial management systems practiced or proposed by the borrower or EA to support project implementation and operation.

4.2.1.2. The EAs should be capable of providing correct and timely information on the progress of project implementation and, where appropriate, on its operation. ADB has also to be assured that the expenditures incurred on a project will in fact be used for the purposes stated in the loan agreement.

4.2.1.3. The identification, preparation and appraisal activities to be undertaken by a financial analyst prior to loan negotiations should be adequate to comply with the requirements

of OM 35 (particularly Sections 2, 6 and 7). Identification and preparation of an investment project requires a financial analyst to obtain a detailed knowledge of the institutions and systems that are, or will be used for implementation and where appropriate, future operation. This task includes, among other things, acquiring the knowledge and ability to determine at, or before appraisal and preparation of the RRP, whether or not the financial management system(s) proposed by the borrower and the EA will be sustainable from project start-up, through implementation, and where appropriate, for the operation of the project.

4.2.1.4. The financial analyst should make recommendations to the borrower and ADB on the minimum changes to be made in financial governance, including financial management, considered necessary to assure efficient and effective delivery of the proposed project from start-up. The financial analyst should define to the EA and ADB those elements of a financial management system that either should be put in place before start-up, or within a defined time after start-up. This is to enable the financial management system to operate at full efficiency. The elements identified may constitute components that are to be financed as part of the project, and completed in accordance with a timetable acceptable to ADB.

4.2.1.5. The financial analyst should advise ADB in all cases where, in their judgment, the level of financial governance proposed by the EA would be inadequate to sustain the proposed project or the financial viability of the entity – especially if no defined modifications are to be set in place either before start-up, or within a reasonable period of time following start-up.

4.2.1.6. The objectives of preparing and appraising institutions and systems are as follows: (i) to assess the institution's capacities in regard to project implementation (in the case of project preparation) or in regard to performing its sectoral role (in the case of sector reviews); (ii) to understand the role and significance of an institution within the overall political, executive, and institutional/systems environment, including its likely capability and capacity to influence decisions that will be beneficial to its project implementation; (iii) to ensure that the proposed project is likely to be acceptable at the highest decision-making (including political) levels; (iv) to ensure that it will be tailored to the technical and managerial capacities of the agencies; (v) to identify the specific institutional deficiencies regarding financial management that should be addressed prior to appraisal; (vi) to develop specific institutional strengthening measures with regards to financial management; and (vii) to define to the EA the appropriate project management, implementation, and where appropriate, operational arrangements for the project.

4.2.1.7. The extent of a financial appraisal will depend upon the extent and type of dealings ADB has with the concerned EA, the EA's experience in implementing projects, and the extent and nature of previous institutional strengthening. An appraisal's scope,

pertaining to financial management activities, should include: (i) analyzing the EAs' structure and management framework with regards to financial management; (ii) assessing the agency's resources, including the number, quality and technical capabilities of its staff, the extent of financial and budgetary support it obtains, the nature of technology, equipment, software in use; (iii) assessing the agency's operating results (preferably for a five-year period) and identifying specific performance shortfalls or variances. After this, a diagnosis of performance shortfalls should be undertaken to identify specific institutional deficiencies and related institutional strengthening interventions. The institutional deficiencies should be classified into those pertaining to the management framework and those due to resource constraints.

4.2.2. Major Institutional Assessments

4.2.2.1. For longer term and more comprehensive institutional strengthening of financial management, a detailed examination, with recommendations for improvements should preferably be part of the periodic country/sector reviews normally undertaken by ADB, or as a discrete and independent exercise by itself undertaken at the request of the concerned agency/government.

4.2.2.2. Specific consultant TORs should be included for the appraisal of the concerned EAs' financial management arrangements. The consultants recruited must specialize in financial management. Their experience must relate to the operations of the agency concerned. Usually two to three person-months' time is sufficient to conduct an institutional assessment of financial management arrangements and recommend corrective actions if required.

4.2.3. Governance

4.2.3.1. The ADB's governance policies are operationalized through OM 54. This OM was developed from ADB's Paper on Governance: Sound Development Management. It is recommended that this Paper also be studied to appreciate the thrust of ADB's policy on Governance as set out in OM 54.

4.2.3.2. ADB regards questions of governance from the standpoint of their relation to the effectiveness with which development assistance is used, the impact of development programs and projects, and the absorptive capacity of borrowing DMCs. However, ADB's analytical framework for addressing governance issues draws a distinction between elements of good governance and the specific areas of action (e.g., public sector management), in which they could be promoted or their existence enhanced. Accordingly, ADB has identified the four basic elements of good governance: accountability, participation, predictability, and transparency.

4.2.3.3. A financial analyst, or any staff member or consultant engaged by ADB to define the financial management and analysis requirements of a project, the project's EA and any associated organizations must take into account ADB's policy on good governance. This would also include ADB's definitions and the approach to supporting its DMCs in achieving that goal through its operations. By defining the above key elements of good governance, and drawing attention to the linkages between these four elements, ADB makes clear that sound development management is critical for ensuring adequate returns and efficacy of the programs and projects it financed and that these should be used to underpin its good governance policy.

- OM 54 proposes that ADB will enhance **accountability** by focusing on public sector management, public enterprise management, public financial management, and civil service reform.
- Under **participation**, ADB will support involvement of beneficiaries and affected groups in development programs and projects; the development of closer interfaces between public and private sectors; decentralization of economic functions (particularly to local government units); and cooperation with NGOs.
- As regards **predictability**, ADB emphasizes enhancement of effective legal and regulatory regimes for economic development and capacity building of institutions responsible for the administration and enforcement of such laws and regulations including training of legal personnel.
- Disclosure of information, as stressed in OM54 is the principal focus of ADB's support for **transparency**, ranging from national-level data (statistics, etc) to annual financial reporting by EAs.

4.2.3.4. While ADB intends to provide specialist support to advise on, and to assist in project preparation and implementation for financial management-related components, it will remain the responsibility of each financial analyst to prepare, appraise and supervise each element of the project. This should be done in a manner that is fully responsive to ADB's governance policy. While it is recognized that accurate information on transparency, in particular, may be limited or not available with respect to a proposed project in the early stages of design and development, the financial analyst should still encourage the EA and any PPTA consultants to ensure full disclosure of all institutional, systems, and financial management aspects by the time final documentation of the project is available for appraisal.

4.2.3.5. OM 54 and the policy paper are extensive in their scope, their proposed assistance and definitions, together with a forecast of ADB's commitments, to not only assist the DMCs, but also to ensure that ADB itself can be held equally responsible for upholding its governance tenets.

4.2.3.6. ADB's Policy Paper on Good Governance also stresses the need to be vigilant with respect to corruption and fraud. To further assist financial analysts and others concerned with corruption avoidance, the Knowledge Management section of the web-based Guidelines contains useful reference materials on anti-corruption.

4.2.4. Financial Policies

4.2.4.1. ADB Policy

4.2.4.1.1. ADB requires that a project be designed, developed, and operated (among other factors) within the framework of the financial policies, strategies and systems prescribed by those institutions of the government concerned which are responsible for national and sectoral economic and financial planning.

4.2.4.1.2. The project should respond to a clearly defined objectives, including among others, sustainable economic goals; execution based on the least cost solution; time-bound delivery of benefits; and financial viability. ADB has a broad interpretation of financial viability in this context. It implies at an optimum, the ability of a project to replicate itself, to finance day-to-day operations and maintenance, and to service its debt. As a minimum, financial viability should represent the provision of adequate funds to finance day-to-day operations and maintenance. The provision may come from either the operations of the project itself and/or from government budgetary support, this will be sufficient to assure ADB that a partial revenue earning or a non-revenue-earning investment will generate the target levels of economic benefits through its working life.

Exceptions to the Foregoing

4.2.4.1.3. Circumstances may exist at fact-finding of a project where the prescribed financial policies, strategies and systems of the governments concerned in part, or as a whole, may contain defects not acceptable to ADB and which may affect the design and execution of the project. In such conditions, the design of the project should formulate means of eliminating these defects in the financial policies, strategies and systems of the government concerned to enable the financial analyst to confirm at appraisal that the EA's financial management systems will be sustainable.

4.2.4.1.4. This means that the financial policies, strategies and systems of the government must be adequate to underpin the EA's financial management systems, and will support the project and the EA from project start-up, through implementation, and where appropriate, during the operation of the project.

4.2.4.1.5. The project should include as covenants in the legal agreements, steps to be undertaken by the government in applying policies, strategies, and systems acceptable to ADB. These steps should support the project from the start of implementation through its working life. Also, policy dialogue should be conducted to remove concerns or unacceptable policies and practices.

4.2.4.2. Financial Analyst's Responsibilities

4.2.4.2.1. The financial analyst has to obtain sufficient information to assure ADB during fact-finding and by appraisal that a project will be developed and operated within a framework of governmental financial policies, strategies and systems. And they should be assured that said framework is fully aligned with ADB's policy.

4.2.4.2.2. ADB typically uses various covenants in loan agreements, including financial performance covenants, to reinforce these assurances.

4.2.4.2.3. Following project inception, the financial analyst is required to continually assure ADB management that the above framework will facilitate the accomplishment of project targets.

4.2.4.2.4. The financial analyst should also draw the management's attention to any change, which has occurred, or could occur, in financial policies or strategies or systems, (including failure to comply with financial covenants) which could reduce project effectiveness.

4.2.4.3. Executing Agencies (EAs)

4.2.4.3.1. A project may be designed and/or implemented by an EA, which acts solely as a vehicle for its development, prior to its transfer on completion to an operating agency.

4.2.4.3.2. More frequently, particularly in the case of semi-autonomous public sector enterprises, the agency is the project executing and operating agency, and is typically referred as the EA in ADB documentation.

4.2.4.3.3. EAs typically have as their primary objective the timely delivery of an operational project, with parallel objectives of economizing and effectively using human, physical and financial resources.

4.2.4.3.4. Operating agencies' objectives should center on efficient operation by the effective use of such resources to achieve economic objectives with capabilities to: (i) adjust inputs and outputs to respond to changing objectives; and (ii) constantly measure the impact and use of inputs and outputs.

4.2.4.3.5. A public sector enterprise, as a project executing and operating agency, combines the two roles above, and embraces all the objectives, normally with better opportunities to adjust project development to meet changing operating objectives as implementation proceeds.

4.2.4.3.6. Identification and confirmation of the objectives of the project and those of the implementing and operating agency, and the proposed and/or actual means of achieving them, are the key tasks of the financial analyst.

4.2.4.3.7. While financial aspects of these matters should attract the financial analyst's principal attention, they must be intellectually aware of, and capable of responding to other factors. These may be related economic and technical objectives, techniques of design and implementation, and the operation of the project, together with the impact of any related, ongoing facilities and activities with which the project will be linked.

4.2.4.3.8. These may include parallel investments in the same or other sectors that are to be appropriately linked to achieve common economic objectives. For example, the construction of water supply and sewerage facilities by different EAs, or by the same agency drawing on differing sources of funding, should have common economic, financial and environmental objectives. These should primarily be related to achieving appropriate standards of public health, including in particular recognition of the financial impact which good health has upon the earning capacity of the population concerned.

4.2.4.4. *Financial Policies and Strategies for Projects and EAs*

4.2.4.4.1. The majority of ADB's operations are in the public sector. Therefore, project EAs and the projects that they design and implement must conform not only to their own policies, (where these are acceptable to ADB) and to their prescribed systems, but also to the various economic, technical and financial policies and strategies of their superior authorities or controlling bodies. This also applies, almost without exception, to semi-autonomous public sector enterprises.

4.2.4.4.2. An example of an exception could be a development bank (an FI) that is incorporated as a public company with the government having 51 percent nominal financial interest. It's an exception since it has its own Articles of Incorporation which allows it to adopt its own policies, strategies and systems, and be managed by a Board on which the government is either not represented or is represented in a minority position only.

4.2.4.4.3. Governmental structures vary widely, therefore it follows that a wide range of superior or controlling authorities of EAs exist. Therefore, the financial analyst must

obtain a detailed working knowledge of such authorities' financial policies and strategies, as well as of their financial systems of budgeting, allocations, allotments, and accounting.

4.2.4.4.4. The example below states a case where government may be encouraged to review its financial policy with regard to a particular enterprise. A result of the financial analyst's examination of the financial policy in detail recognizes that the public sector enterprise could, in fact, be strengthened by increasing its self-financing ratio, and by the government withdrawing some of its financial support over time.

Example of Policy Adjustments to Improve Opportunities for Market Participation

In an ADF member country, the Government sought ADB's assistance to finance part of the cost of a project to be executed by an enterprise intended by government to become involved in open-market trading, particularly the capital market.

The government traditionally has lent ADF funds at about one percent under market rates, and provides from its own resources (revenues or loans) about 15 percent of the capital resources needed, leaving the entity to provide the remaining five percent from its own resources.

The debt-equity ratio of the entity is weak at 78:22, and examination reveals that only 4 percent of the total capital structure has been self-financed by the enterprise in recent years. Furthermore, in the past two years, the government has been increasingly unable to meet its commitments to finance its share of projects as agreed with ADB, and therefore its commitment to this proposed project is insecure.

4.2.4.4.5. At fact-finding, the financial analyst and the Project Officer should discuss overall financial planning with the enterprise, the sector and key economic and finance ministry officials. Focus should be made on the need to immediately improve the enterprise's debt-equity ratio, particularly if it is to start market operations in the near future.

4.2.4.4.6. Upon advising the government to adjust the cash-based self-financing ratio over the maximum of a two-to-three-year period to about 20 percent, the enterprise should automatically commence a program of reforming its debt-equity ratio by providing self-generated contributions. As such, the government will then be relieved from making any input after about three years.

4.2.4.4.7. The analyst should seek commitments from the government and the enterprise that the self-financing ratio will be increased for this and future projects, (whether financed by ADB or not). This is to bring the debt-equity ratio, closer to 60:40 by the end of project implementation. At that level, the enterprise is likely to have substantially greater opportunities of participating in the capital markets as the new project comes on line.

4.2.4.4.8. As a result of the financial analyst's methodical scrutiny of the institutional structures, unforeseen issues and problems are revealed, therefore preventing future hindrance in implementation and operations. The working knowledge gained by the analyst in the review of the policies and strategies, and their effectiveness would be essential in the following stages.

4.2.4.4.9. It must be ascertained during appraisal that the institutional and financial management systems of the EAs are capable of implementing the strategy. This would include assuring the sustainability of the financial management systems from start-up.

4.2.4.4.10. The financial analyst must be able to specify the nature and form of the analysis to be prepared by the EA. This should be in a manner that will enable the analyst to determine whether the financial objectives of all involved are credible. They should also be able to identify factors to which the proposed implementation and operations may prove financially sensitive.

4.2.5. Country Diagnostic Studies of Accounting and Auditing

4.2.5.1. In order to assist its DMCs to introduce and operate the most effective financial management systems, ADB may from time-to-time, undertake a Country Diagnostic Study of Accounting and Auditing (DSAA) in collaboration with the host government.

4.2.5.2. Each DSAA is designed to address and understand the financial management characteristics and issues of a country. Experienced ADB staff and/or consultants will conduct the study and a draft of the results will be shared with the government prior to publication of the final document. A DSAA supports the achievement of ADB's country accountability and financial management objectives including:

- fiduciary responsibilities, by identifying the strengths and weakness of institutional accountability in the public and private sectors and the risks that these may pose to the use of ADB funds, and
- development objectives, by facilitating a common understanding of the country's financial management arrangements in the public and private sectors by the

borrower, EAs, and ADB and any involved development partners, thus facilitating the design and implementation of capacity-building programs.

4.2.5.3. ADB may from time-to-time participate with the World Bank to conduct joint studies for a country. The TORs may be common, or provided separately by each organization to its staff and/or consultants, as appropriate.

As of June 2001, DSAs had been completed for: During 2001, further DSAs are being conducted on:

- | | |
|---|--|
| <ul style="list-style-type: none">• Cambodia• China, People's Republic of• Mongolia• Pakistan• Papua New Guinea• Philippines• Uzbekistan, and• Viet Nam. | <ul style="list-style-type: none">• Azerbaijan• Fiji• Marshall Islands, and• Sri Lanka. |
|---|--|

4.2.5.4. These studies can be accessed at www.adb.org/governance/govpub.asp.

4.2.6. Executing Agencies (EAs)

4.2.6.1. Introduction

4.2.6.1.1. ADB categorizes EAs as forms of organization that may undertake any combination of the following activities in the public and private sectors: (i) design of a project; (ii) implementation of a project; or (iii) operation of a project.

4.2.6.1.2. An efficient EA is critical to the success of implementing and, in many cases, operating a project. Therefore it is essential that the management of an EA and its superior management (for example, a ministry or government department), be fully informed of ADB's objectives and requirements for project implementation and operation.

4.2.6.1.3. Equally important, ADB staff are required to ensure that the objectives, policies, strategies and management of an EA are completely aligned with ADB's policies and strategies for a project before recommending its processing to loan negotiations.

4.2.6.1.4. EAs are broadly classified into the following three types:

- public sector agencies, which include country/government technical line agencies and state/provincial arms of such technical agencies, and local governments
- statutory bodies, public sector enterprises, or government-owned bodies such as agricultural and industrial credit banks, fertilizer corporations and the like; and
- private sector organizations like commercial banks; public utilities; oil, gas and minerals companies; telecommunications; farmers' entities and associations; etc.

4.2.6.1.5. EAs are also classified as revenue-earning and non-revenue-earning. The term revenue-earning encompasses EAs and projects to be implemented and/or operated by it, which are commercially oriented enterprises whether in the private or public sector. Revenue-earning would also cover public sector institutions, which generate substantial revenues either by consumer charges, or forms of sector-specific local taxation (property tax-based levies for water supplies, drainage, etc.), or both. Examples are public sector enterprises, commercial and industrial enterprises, public utilities, telecommunications, industrial and agricultural credit banks, parastatal, and municipal government utility operations.

4.2.6.1.6. Non-revenue-earning projects are usually implemented and operated by public sector EAs whose financial support derives predominantly from central, provincial, state and/or local government budget allocations, and for whom there may be no cost or only partial cost recovery, often accomplished indirectly.

4.2.6.1.7. Non-revenue-earning EAs include the above forms of governments' ministries and departments, and project EAs under their control in such sectors as poverty alleviation, agriculture, education, highways, population, and health. An EA may have a tiered management in the form of a Project Management Unit (PMU), with the latter having one or more Project Implementing Units (PIUs). In such cases, the EA is responsible to the borrower and ADB for the successful implementation of the project, including delivery of all financial reports and auditors' reports and opinions in accordance with agreed timetables.

4.2.6.1.8. A principal concern of ADB is the efficiency of the financial management and accounting systems of EAs, as an integral part of project preparation, appraisal and implementation, and supervision. This concern is extended to the efficient operation of the elements of the government agency charged with project implementation, even in cases where project objectives initially do not include the improvement of the agency's financial and/or management performance.

4.2.6.1.9. Some projects may have as the primary or sole objective the improvement of the operation of a government ministry (for example, a Ministry of Finance), a department or an agency, or of a segment of the economy, such as the capital markets.

Such projects are normally classified as non-revenue-earning, even though the reforms may impact significantly on revenue-earning performance of the economy.

4.2.6.1.10. Enterprises (as compared to non-revenue-earning EAs), as project implementing and operating agencies, combine the two roles above, and embrace all the objectives, normally with better opportunities as implementation proceeds.

4.2.6.2. Determining the Status and Roles of EAs

4.2.6.2.1. An EA is likely to be subject to regulation by laws, regulations and rules that are administered by superior authorities, typically ministries or departments.

4.2.6.2.2. Departments in particular, that have forms of control over EAs, may themselves be agencies of state or provincial governments that also are the subjects of superior central administrations.

4.2.6.2.3. Therefore, extent of an EA's autonomy and/or control by superior authorities at all levels of a national government's hierarchy should be established. This in order to determine its authority and ability to formulate and implement financial policy, and to design and install financial management systems, (and thereby indirectly to determine how much time may be needed for making changes).

4.2.6.2.4. To resolve these concerns, answers should be sought to the following questions:

- Is the EA fully autonomous (for example, can it legally exist in its own right by the laws of the country without government control)?
- Can it contract, and sue and be sued in its own name?
- Can it determine its own financial policies?
- Is it government-controlled? If so, what is the extent of that controls and influence on financial policies and accounting requirements?
- Is there a specified national code or chart of accounts?
- Is it a government agency? If so, does the EA's management have any powers to decide financial policy, determine its own accounting systems and financial management rules, or does government prescribe these? For example, there could be separate accounting rules for public sector enterprises.
- Is the project to be executed by a part only of an EA?
- Is it necessary or desirable to require a separation of accounts and/or funds for that part of the EA only, and would such a step be feasible?

4.2.6.2.5. It is possible that an EA may not have a definitive view of related governance, particularly the actual superior levels of control. In such circumstances, it may be prudent to seek the advice of the government auditor.

4.2.6.2.6. Government auditors are often well informed on national legislation and of the powers and duties of the agencies for which they have the responsibility for auditing.

4.2.6.3. *Appraising an Executing Agency*

Introduction

4.2.6.3.1. This section covers the following areas:

- Overall Objectives
- Appraisal Methodology
- Designing the Institution Development Proposal
- Types of Institution Development Interventions
- Costing of the Institutional Strengthening
- Implementation Strategies
- Risks

Overall Objectives

4.2.6.3.2. The overall objective of appraising an EA is for ADB to satisfy itself that the concerned agency does in fact have the technical, managerial, and financial capacity to implement the proposed project or program efficiently and effectively. An appraisal's specific objectives, from the financial management perspective, are to:

- Develop criteria on which to decide whether to postpone loan approval until financial management arrangements are strengthened appropriately.
- Assist in identifying the institution's specific development needs (in terms of financial management), both project related as well as long term, that are to be addressed either as a project component or as an independent TA.
- Assist in arriving at appropriate project organization management and coordination arrangements, with regards to financial management and reporting.

4.2.6.3.3. The appraisal of EAs for purposes of project planning should take place during project feasibility studies. For longer term and more comprehensive institutional strengthening, the appraisal should preferably be part of periodic sector reviews normally undertaken by ADB or a discrete and independent exercise by itself undertaken at the request of the concerned agency/government. Include specific TOR for Consultants for

the appraisal of the concerned EAs during project feasibility studies for project-related purposes or during sector reviews for any independent assistance planned for institutional strengthening. Consultants should be from the specializations of institution development and the technical expertise related to the operations of the agency concerned.

Appraisal Methodology

4.2.6.3.4. An agency's capacity to achieve results mainly depends on: (i) its structural and managerial ability to effectively and efficiently employ its resources; and (ii) the extent of resources mobilized in the form of financial budgets, the number and quality of staff, and the extent and type of materials and equipment. In relation to financial management, the appraisal and assessment of EAs should comprise the following four-steps:

4.2.6.3.5. **Step 1:** Analyze the EA's Structural and Management Framework:

- Examine the organization's structure with regards to financial management. This will include an analysis of how functions are distributed and distinguished, how roles, responsibilities and authorities are delineated and apportioned both vertically and horizontally, what are the key lines of command etc. Also included should be an analysis of links with collaborating agencies also operating in the sector concerned.
- Examine the agency's main administrative and management systems and procedures, in relation to financial management. These should include operational planning and programming systems, financial management and budgetary processes, management information and monitoring systems.

4.2.6.3.6. **Step 2:** Assess Institutional Resources (Inputs)

- Assess the number, qualifications and experience of financial management staff at all key levels.
- Assess for all relevant periods, the extent of financial support available in terms of investment budgets and operating budgets. These should be described by major items, as well as by allocations made to various operational units, both functional as well as geographical.
- Assess the adequacy of agency accounting information systems.

4.2.6.3.7. **Step 3:** Assess Institutional Results (Outputs)

- Develop agency consolidated financial statements (against budgets) for each functional area, for relevant operating periods, and for geographical agency units (if these exist).

- Also develop consolidated financial statements for past operating periods (including growth trends, if possible) and compare these against similar agencies (comparator agencies may be similar agencies in other countries where the sociopolitical environment, the cultural context, the geographical dimensions of operation are similar).
- Identify financial performance shortfalls or variances by comparing current performance with targeted performance, past performance-growth trends and, if feasible, with the performance of comparator organizations.

4.2.6.3.8. **Step 4:** Analyze Performance Shortfalls

- Develop a diagnostic analysis of linkages between identified financial performance shortfalls/variances and deficiencies in the agency's resource availability and management framework. This should be done in collaboration with the agency's top management. These analytical findings should be agreed with the agency's management.
- Together with the agency's management, develop alternative institution-building interventions, with regards to financial management arrangements. These should be prioritized and based on an alternatives-analysis, using criteria such as cost, envisioned scope of impact, degree of risk, ease of implementation, etc.

Design the Institution Development Proposal

4.2.6.3.9. Types of Institution Development Interventions, with regards to financial management:

- When planning and designing institution development proposals (based upon project preparation), staff should keep in mind that institutional strengthening can be targeted at resource enhancement or management upgrading or both depending on the needs identified. As a general rule, resource enhancement should be resorted to first, if this option is available, since this can be achieved more easily and quickly.
- The caveat however, is that resource enhancement is normally only a short-term solution to institutional deficiencies and should preferably be supported by more basic institutional changes or upgrading. Changes in or upgrading of policies, strategies, structures, administrative and management systems, etc. are far more difficult to achieve, requires strong institutional support and commitment, and consequently a more extended time frame. On the other hand, they have a more lasting and permanent impact on institutional efficiency and effectiveness.

4.2.6.3.10. A general checklist of the types of institutional strengthening that may be focused upon in an institution-building proposal is given below.

- Resource Enhancement
 - Staffing: enhance staff availability; reallocate staff resources; upgrade staff skills (training);
 - Budgets: enhance operating budgets; reallocate funds by item; and
 - Technology: enhance availability of equipment and materials; improve quality of equipment; introduce new types of software.

- Management Upgrading
 - Policies and Strategies: review, revise, change priorities, adjust funding allocations, adjust strategic emphasis, build research and analytic capability, enhance “market” or “sector” information system, etc.;
 - Organization Structure: change and reassign roles and responsibilities change lines of authority, revise position descriptions and position hierarchies, establish task groups, create coordination mechanisms, strengthen linkages with collaborating agencies, etc.;
 - Administrative and Management Systems and Procedures: revise, upgrade, simplify, reorient basic systems and procedures such as: planning and programming, financial management, operations monitoring, information feedback, personnel management and compensation, incentive systems, etc.; and
 - Leadership Style: revise methods of communication, methods of involving staff at all levels, build openness and willingness to innovate, etc.

Costing Institutional Strengthening

4.2.6.3.11. If part of a project, the institution strengthening measures should preferably be consolidated into a discrete component to facilitate project administration. The costs relating to such a component would usually include (i) consultant services; (ii) civil works (e.g., training center), equipment, (iii) training expenses and (iv) administration overheads (e.g., for the training center). Some of these costs could be recurrent costs that will continue to be incurred even after project/TA completion.

4.2.6.3.12. In such a case careful consideration should be given to whether ADB should fund such costs during project/TA implementation: if so, to what extent; and does the government have the capacity to meet such recurrent costs after project/TA completion. Given ADB's tight TA budget, the availability of cofinancing or funding from other donors should be examined.

Implementation Strategies

4.2.6.3.13. Implementation strategies will necessarily depend on the type of institution development interventions planned. However, staff should bear in mind the following when planning and scheduling the implementation of institution development interventions with the agency concerned.

- Institutional strengthening measures, and especially those, which relate to the upgrading of the management framework, have to be implemented in a gradual and phased manner. Like a person, an institution takes time to learn, adopt and adjust to new and revised forms of behavior; and
- Experience has indicated that it is very useful to make use of implementation workshops. These are carefully structured discussion sessions of small groups of concerned institutional staff held periodically. Their primary objectives would be as follows: (i) creating awareness and recognition of the need to change, revise and upgrade; and developing the commitment to do something about it; (ii) action planning to ensure the active involvement of all concerned and to facilitate briefing of what is required; and (iii) reviewing implementation to assess progress and impact, and to accordingly adjust the direction, focus, schedule, etc., of the institutional strengthening program.

Risks

4.2.6.3.14. Some of the major risks that should be taken into account when planning institutional strengthening measures (in relation to financial management arrangements) are as follows:

- In the case of resource enhancement – do not create dependency.
- In the case of management upgrading – do not create disorientation by introducing too many changes too quickly.
- Do not overlap or conflict with already ongoing institutional strengthening initiatives.

4.2.6.3.15. Institutional strengthening programs should also always be proposed and undertaken by ADB with caution, care and a great deal of responsibility. This is because the longer-term risk-potential with institution-building programs is usually greater than those related to the transfer of capital and investments. Furthermore, these types of program can create dependency or result in the transfer of inappropriate technology.

4.2.6.3.16. If not done in a circumspect and phased manner, attempts to revise or upgrade the management framework can create serious institutional disorientation, especially if prior commitment at all levels has not been ensured for the changes being implemented.

4.2.6.3.17. External financing agencies tend to view “their” project as the most critical. Consequently, institution-building activities can be implemented in a parallel rather than a complementary manner. This usually confuses, rather than assists, the institution concerned. In the longer term, the results of a misguided institution-building program can consequently be quite the opposite than what was originally envisaged. It is therefore always necessary and essential to proceed cautiously and with an action-learning format that is structured to include phasing, review, and consequent program readjustments in an ongoing cyclic process.

4.2.6.3.18. The extent of an appraisal will depend upon the extent and type of dealings ADB has with the EAs concerned, the experience of the EA in implementing projects and the extent and scope of institutional strengthening previously undertaken by ADB or other external financing agencies.

4.2.7. Project Objectives

4.2.7.1. A project should respond to clearly defined objectives, including among others, sustainable economic goals; financial objectives; achievement based on the least cost solution; time-bound delivery of benefits; and financial viability.

4.2.7.2. ADB has a broad interpretation of financial viability in the context of project design and development. It implies at an optimum, the ability of a project to replicate itself, to finance day-to-day operations and maintenance, and to service its debt. As a minimum, financial viability should represent the provision of adequate funds to finance day-to-day operations and maintenance. The provision may come from either the operations of the project itself and/or from government budgetary support, this will be sufficient to assure ADB that a partial revenue-earning or a non-revenue-earning investment will generate the target levels of economic benefits through its working life.

4.2.7.3. In addition, primary aims should be the extent to which the inclusion of financial and institutional components of a project that can enhance good governance, either of the EA and the project itself, or of any related/adjacent institutional elements.

4.2.7.4. For projects to be developed, implemented and operated by public sector institutions, ADB requires that a project be designed, developed and operated (among other factors) within the objectives and framework of the financial policies, strategies and systems prescribed by those institutions of the government concerned. These are government institutions responsible for national and sectoral economic and financial planning.

4.2.7.5. For private sector projects to be developed implemented and operated by private sector institutions, ADB requires that a project be within the objectives and

framework of the financial policies, strategies and systems prescribed by the Articles (or a similar statutory document) of the company or organization. Furthermore, this should be within, and in conformity with, national and sectoral economic and financial planning objectives

4.2.7.6. Identification and confirmation of project objectives and those of its implementing and operating agency, and the proposed and/or actual means of their achievement, are key tasks for the financial analyst.

4.2.7.7. While financial aspects of these matters should attract the financial analyst's principal attention, they must be intellectually aware of, and capable of responding to other factors. These may be related economic and technical objectives, techniques of design and implementation, and the operation of the project, together with the impact of any related, ongoing facilities and activities with which the project will be linked. These may include parallel investments in the same or other sectors that are to be appropriately linked to achieve common economic objectives. For example, the construction of water supply and sewerage facilities by different EAs, or by the same agency drawing on differing sources of funding, should have common economic, financial and environmental objectives. These should primarily be related to achieving appropriate standards of public health, including in particular recognition of the financial impact which good health has upon the earning capacity of the population concerned.

4.2.8. Revenue-Earning Projects

4.2.8.1. Introduction

4.2.8.1.1. The public and private sectors are likely to operate many forms of revenue-earning entities. Section 3.2.1 contains a listing of typical revenue-earning entities. The delivery of goods and services by these institutions can embrace many different activities and components, and therefore this listing should not be considered as comprehensive:

4.2.8.1.2. All public and private sector revenue-earning institutions operate under forms of law, usually substantially defined within regulations and rules. The form of law will differ extensively between public and private sectors.

4.2.8.1.3. Institutions may operate under the control or guidance of a particular ministry or department such as a Ministry of Energy, Department of Agriculture, etc. Their control/guidance activities typically impact nationwide and other ministries and departments of government are likely to be involved. For example, a Ministry of Transport is likely to be involved in reviewing and granting permissions for long distance water, gas, oil pipelines construction. Typical examples are Ministries (or Departments) of

Economic Development, Finance/Treasury, Trade and Industry, Environmental Protection and Consumer Protection.

4.2.8.1.4. Laws, government regulations and/or rules (in relation to financial management) under which an entity operates should be examined, and the entity's observance or non-observance of them should be identified, so as to determine any possible effects on the project cycle. Introducing new legislation or amending any existing laws may require considerable time. Advice of the Office of General Counsel and the concerned Operations Coordination Division should be sought if it appears that legislative changes may be required. If introduction of legislation proves necessary, it should be made the subject of a realistically dated loan covenant.

4.2.8.1.5. Statutory powers or requirements may relate directly to the entity's operations (e.g., power to fix tariffs and levy charges for products or services) or they may define criteria within which an entity may operate (e.g., banking laws which define borrowing/lending limits).

4.2.8.1.6. Detailed financial or accounting requirements may not be part of specific legislation relating to the entity or in the entity's "charter" but may be addressed in general laws to which the EAs "charter" may refer.

4.2.8.1.7. Most revenue-earning EAs are autonomous, or have a high degree of autonomy, with powers to determine financial policies and the design and operation of financial management and accounting systems. Some state-owned enterprises, on the other hand, may be required to conform to a national accounting plan or chart of accounts. Such plans and charts are sometimes not conducive to providing adequate information for project and EA management.

4.2.8.1.8. The following is a checklist of items to be considered when reviewing these arrangements. The reviews may take place at the time of project identification, preparation, or appraisal. As a general rule, the earlier these reviews take place the greater the opportunities for corrective or initiating actions for new systems.

- Statutory requirements for accounting and financial reporting
- Status of the entity (autonomous or under government control)
- Accounting policies and practices in force
- Financial regulations
- Management and control
- Centralized or decentralized accounting systems
- Management accounting
- Corporate planning and budgeting and, budgetary control
- Accounting systems
- Financial management and internal control and, internal audit systems

- Data processing – unless integrated in above systems
- Financial staff: management, competence, and training

4.2.8.2. Entity Status

4.2.8.2.1. Therefore, extent of an EA's autonomy and/or control by superior authorities at all levels of a national government's hierarchy should be established. This in order to determine its authority and ability to formulate and implement financial policy, and to design and install financial management systems, (and thereby indirectly to determine how much time may be needed for making changes). The following questions should be resolved:

- Ascertain and describe in detail the status of the entity within its system(s) of governance;
- Is it fully autonomous (for example, can it legally exist in its own right by the laws of the country without government control)?
- Can it contract, and sue and be sued in its own name?
- Can it determine its own financial policies?
- Is it government-controlled? If so, what is the extent of that control and influence on financial policies and accounting requirements? If not, does it have an adequate set of Articles or statutory form of incorporation to operate in the private sector?
- Is there a specified code of chart of accounts?
- Is it a government agency? If so, does the entity's management have any powers to decide financial policies and accounting systems, or does government prescribe these? For example, there could be separate accounting rules for state-owned enterprises.
- If it is a private sector enterprise, is its governance satisfactory? Who makes financial policy/strategy and who executes these?
- Is the project to be executed by a part only of an entity? If so, has that part the necessary legal authority to do so?
- Is it necessary or desirable to require a separation of accounts and/or funds for that part only, and would such a step be feasible? Would this increase operating costs?

4.2.8.3. Planning and Budgeting

4.2.8.3.1. Long, medium, and short-term planning should be the primary elements in financial management. Long and medium-term plans are usually referred to as corporate planning and require different planning approaches, often characterized by "rolling program" techniques, or "indicative planning only". Compared to the short-term budgeting and budgetary control procedures, which are normally based on annual plans. In addition, examination of planning and budgeting systems adopted by an EA should focus on the

emphasis placed on operational efficiency compared to routine fiduciary and revenue control. Answers to the following groups of questions may provide an adequate overview of the corporate planning and budgetary systems.

- Characteristics of Planning
 - ◆ Is there overall corporate planning?
 - ◆ What is the time span of corporate plans?
 - ◆ How are corporate plans expressed?
 - ◆ Are corporate plans summarized in financial terms (pro forma annual financial statements and balance sheets)?
 - ◆ Are overall financial plans supported by appropriate subsidiary budgets (revenues and operating expenditures, capital expenditures, and debt/equity proposals)?
 - ◆ What are the critical monitoring indicators in corporate plans?
- Responsibility for Planning
 - ◆ Who prepares and approves corporate plans and annual budgets?
- ◆ Is there a review system for tariffs, prices and charging mechanism?
- ◆ Is there a review system for capital expenditures?
- ◆ Do the corporate plans and annual budgets identify specific managerial responsibilities for implementation and review?
- Timetables for Planning and Budgets
 - ◆ What is the timetable for preparation and approval of corporate plans and annual budgets?
 - ◆ Does the timetable allow sufficient time for generation of all inputs and management reviews of corporate plans and annual budgets (consider the extent of centralization/decentralization of the entity)?
 - ◆ Who prepares and controls these timetables?

4.2.8.4. Accounting Policies

4.2.8.4.1. The acceptability of an EA's accounting policies, including standards of financial reporting and general accounting practices, should be examined. If these policies do not conform to accepted international or national standards and practices, which makes comparison and performance evaluation difficult, the EA should be informed of any required modifications. In addition the EA should also be notified of the latest date for the modification's introduction (e.g., before project implementation commences, or by a date to be specified in a covenant).

4.2.8.4.2. On the other hand, if only minor items are involved (e.g., methods of apportioning overheads or valuing inventories), as long as these variances are quantified and revealed in the annual financial statements and the auditor's report, their continued use may be acceptable.

4.2.8.4.3. At loan negotiations, where financial covenants are incorporated in the loan agreement, the accounting standards that will be used as the basis for measurement of financial performance should be defined.

4.2.8.4.4. If variances exist from acceptable accounting form and practices they should be discussed with the entity's auditor, if possible, before requesting a change in practices. The auditor should be asked by the EA to address these subjects in the opinion and report on the annual financial statements.

4.2.8.5. *Financial Regulations*

4.2.8.5.1. The underpinning of a sound accounting system is a regularly updated set of financial regulations. These are usually designed to define the objectives of, and responsibilities within, a financial management and accounting system. Regulations should also clearly define who is responsible for the implementation and updating of financial regulations.

4.2.8.5.2. The provision of new regulations or the improvement of existing ones should preferably be sought before loan negotiations.

4.2.8.5.3. Assistance to introduce or improve regulations and systems should be encouraged where necessary, by seeking Bank consideration of a proposal for technical assistance to the borrower or EA.

4.2.8.6. *Accounting Systems*

4.2.8.6.1. ADB requires that appropriate systems of accounting and control be installed and operational for a project, and where applicable, an EA.

4.2.8.6.2. Any issues or special requirements relating to the development of these systems, particularly during project preparation, should be referred to the Regional Director. If these are not resolved before appraisal, these should be referred to in the Appraisal Mission Issues Paper.

4.2.8.6.3. To ensure accountability for project implementation funds, each project should have an adequate accounting and internal control system for recording and reporting project-related financial transactions from the time that project expenditures commence (which could be before Board approval to the loan).

There are no exceptions to this requirement.

4.2.8.6.4. Specifically, the system should:

- Be simple to operate;
- Require staff to operate with minimum supervision, and have the necessary personnel trained to operate the system from project start-up;
- At a minimum, provide records of project expenditures, receipts or monies and funds flow generally from the date of first transactions, including expenditures incurred prior to project approval which might be eligible for inclusion in disbursement claims (retroactive financing);
- Where available, have data processing and information technology systems that are modern, efficiently managed, and fully responsive to the needs of management of the EA and the proposed project;
- Have adequate internal checks and controls; be able to balance financial data frequently and to report project financial results at intervals and within the time frame required by ADB;
- Where needed, meet requirements for Statements of - Expenditure (SOEs) or Imprest Fund records; and
- Be capable of expansion, when necessary, to meet the increasing demands for financial data arising from expanding project activities or entity operations.

4.2.8.6.5. Where ADB is also concerned with the financial performance and status of the EA, the latter should provide adequate financial management and accounting systems and reporting procedures for both the project and the EA responsible for project implementation from the start-up of the project. However, in cases where an EA's systems need upgrading or expansion to meet the requirements above, ADB may consider approving the use of assistance as a project component. Such assistance does not exempt the EA from providing accounting and internal control systems capable of meeting the requirements with regard to the project accounting and reporting. Given ADB's tight TA budget, the availability of cofinancing or funding from other donors should be examined.

Centralized and Decentralized Accounting Systems

4.2.8.6.6. A financial analyst may be confronted with an inefficient accounting system. The borrower may suggest a local freestanding system that would be more effective if it would be merged with large central systems with their enhanced facilities. Or it may be a centralized system would work more efficiently if it would be detached from the core system, and establish a semi-autonomous accounting unit.

4.2.8.6.7. Large industrial and commercial organizations, or large state-owned enterprises, may operate centralized financial management and accounting systems. In many such systems, all information generated at operational levels (e.g., project sites) is

transferred to a central location for making payment to contractors, etc., for data processing; and for compilation of accounting records.

4.2.8.6.8. Delays and loss of data can result, which affect, inter alia, prompt and accurate reporting to ADB by the EA. In addition difficulties may arise when the external auditor is required to provide a separate report and opinion on the project operations and on the EA.

4.2.8.6.9. Conversely, decentralized systems, which permit local financial operations, usually require more extensive controls and more staff with related difficulties of obtaining good management.

4.2.8.6.10. Therefore, before recommending financial management and accounting systems changes to a borrower on project (and, where applicable, EA), it is prudent to examine the advantages and disadvantages of existing and proposed systems with regard to the efficiency of centralized or decentralized operations.

4.2.8.6.11. Key factors to be considered are the competence of management, security, internal controls, communications and the availability of trained staff to provide routine quality performance, but also the ability to address non-standard operations, for example, what to do when something goes wrong.

4.2.8.6.12. The financial analyst should be aware that there are snags and pitfalls when deciding how to resolve these situations. One solution may require that a consultant should be engaged under appropriate TORs to recommend most effective alternative system requiring the least cost. Another solution, dependant on the role and responsibilities of the EA, could be to recommend the hiring of an accounting firm to provide the necessary financial information during the period of project implementation. Or financial analysts can study the system(s) in detail and recommend their own solution for consideration by the EA.

4.2.8.6.13. Whatever optimum solution is recommended, it must be acceptable to the management of the EA. If management does not accept the proposed system, it is unlikely to be successful, despite its potentially successful attributes.

4.2.8.7. *Financial Management and Control*

4.2.8.7.1. To judge the effectiveness of an organizational structure, the following should be reviewed to judge their suitability to support project implementation and operation and the extent of their observance in practice:

- By-laws of the entity;
- Executive orders (if any);
- Statements of objectives and policies;
- Organizational structure;
- Control environment, internal control and internal auditing;
- The need to furnish financial information on an entity's performance to concerned parties within and external to, the EA and the extent of the achievement of such dissemination; and
- The impact of management and control systems on the operation of the financial management and accounting systems should be examined by seeking answers to the following:
 - What is the background and experience of those who represent the finance function on the Board of Management?
 - Who in management reports on financial performance to the entity's owners?
 - Who reports on finance to the management? What is the status of this official?
 - In what form and how frequently does management publicize its decisions on financial policy?
 - In what form and how frequently does management requires and receives information about financial performance-type of reports and distribution of such to various levels of management?
 - What are the control systems and linkages between top management and financial management, and between other managers and the financial managers?
 - Do the answers to questions above add up to a system acceptable to ADB for project implementation? If not, can they be amended in a timely manner to facilitate project implementation?

4.2.8.8. Internal Audit

4.2.8.8.1. The following is an extract from the International Organization of Supreme Audit Institutions (INTOSAI's) Advisory Document on "Standards for Internal Controls":

72. ... internal control is a management tool. It is management's responsibility to implement and monitor the specific internal controls for its operations. Even in countries where specific controls are set out in legislation, a manager has no less a responsibility for implementing and monitoring those controls. All managers should realize that a strong internal control structure is fundamental to their control of the organization, its purpose, operations, and resources. They should accept responsibility for it.

73. To design, establish, and maintain an effective internal control structure, managers should understand the objectives to be achieved. Legislation can provide a common understanding of the internal control definition and objectives to be achieved. It can also prescribe the policies managers are to follow to implement and monitor their internal control structures and to report on the adequacy of those structures.

74. Management often establishes an internal audit unit as part of its internal control structure. While internal auditors can be a valuable resource to educate and advise on internal controls, the internal auditor should not be a substitute for a strong internal control structure.

78. Management can also use its internal audit unit to help monitor the effectiveness of internal controls. The closeness of internal auditors to the day-to-day operations usually places them in a position to continually assess the adequacy and effectiveness of internal controls and the extent of compliance. The internal auditors have a responsibility to management for reporting any inadequacies in the internal controls and any failure of employees to adhere to them and recommending areas needing improvement. In addition, they should establish procedures for following up on previously reported internal and external audit findings to ensure that managers have adequately addressed and resolved the matters brought to their attention."

4.2.8.8.2. The above advice was developed for use in public sector institutions, but the key principles are equally applicable to private sector operations, except for the suggestion that legislation may be necessary to underpin the provision of internal controls. The key principles are:

- It is management's responsibility to implement and monitor the specific internal controls for its operations
- While internal auditors can be a valuable resource to educate and advise on internal controls, the internal auditor should not be a substitute for a strong internal control structure; and
- Management can also use its internal audit unit to help monitor the effectiveness of internal controls. The closeness of internal auditors to the day-to-day operations usually places them in a position to continually assess the adequacy and effectiveness of internal controls and the extent of compliance.

4.2.8.8.3. Internal audit units and operations are most likely to be found in public and private sector enterprises. The units may be centrally located with a mandate to monitor the operation and efficiency of all units throughout the area of operation of the enterprise. Exceptions may occur in very large operational units, where sub-units of an enterprise's internal audit group may have a high degree of autonomy.

4.2.8.8.4. It is unlikely that a non-revenue-earning PIU would have an internal audit unit specifically installed, although a central unit of a ministry or department of government may have been awarded the responsibility to review and monitor internal controls of the PIU.

4.2.8.8.5. ADB's primary concern is to be assured that internal controls not only exist but also are the subjects of regular review and monitoring for efficiency and responsiveness to current operations. Therefore, if an enterprise has an efficient means of achieving this objective, the engagement of a specific internal audit unit may not be appropriate.

4.2.8.8.6. Where reviews and monitoring of ongoing operations of an enterprise are inefficient, ADB should discuss with senior management of the enterprise the need to introduce improvements, one of which may be the use of an internal audit operation. Such a recommendation will require an expert to advise and evaluate a cost/benefit study prepared for that purpose.

4.2.8.9. Financial Regulations

4.2.8.9.1. Financial regulations are usually designed to define the objectives of, and responsibilities within, a financial management and accounting system. They may form part of Standing Orders or Operating Rules or be a preface or appendix to a Manual of Accounting, or they may be restricted to limited definitions of budgetary accounting or internal auditing responsibility within an entity. They may range from government statutory regulations to financial managers' informal rules with no legal status, and should facilitate the examination of the financial management systems by defining their structure and subsystems, and by designating responsibilities.

4.2.8.9.2. Regulations, if any, should be reviewed for their form and content and for their observance. Normally, before appraisal, the extent to which Financial Regulations satisfactorily address the following should be examined:

- Basic financial policies regarding revenues and expenses
- Appropriation of surpluses/treatment of deficits
- Planning and budgeting, including medium to long-term investment planning
- Budgetary control

- Accounting organization
- Recording of assets and inventories
- Inventory control
- Depreciation rules
- Debt management
- Billing and debt collection
- Write-offs
- Bidding procedures
- Payment procedures
- Form and timing of production of financial statements and balance sheets
- Internal checks and controls
- Internal audit
- External audit

4.2.8.9.3. Regulations should also clearly define who is responsible for their implementation. The provision of new regulations or the improvement of existing ones should preferably be sought before loan negotiations. Assistance to introduce or improve regulations and systems should be encouraged through a project technical assistance component.

4.2.8.10. Management Accounting

4.2.8.10.1. A management accounting system should collect and promptly report financial and related statistical information on all aspects of the operating performance of an agency's operations to the various management levels, supplying each level with the necessary details at the appropriate times.

4.2.8.10.2. The management accounting system should produce the annual and periodic financial statements, including the statements for audit. It should incorporate procedures for recording current budgeting and financial planning data, record keeping and reports, and cost accounting (including cost control and analysis) for recording costs. Desirably, but not mandatory, it should use activity-based costing to report detailed costing of all activities of the EA by allocating the maximum amounts of management, supervision and maintenance costs to each activity as costs of production. Such a system, which is often best illustrated in chart form, should include adequate internal checks, controls and internal auditing.

4.2.8.10.3. In the absence of a chart of a management accounting system, an organization chart of the entity's operating structure should be obtained or drawn up by the financial analyst. This should be suitably redrafted to illustrate the areas of management served, or to be served during project implementation by the management accounting system. The chart should show the linkages between the system and the management center of the EA, and to a central organization, if the agency or system is a decentralized unit. The chart should also show the main and subordinate activity areas. The following is a hypothetical example.

4.2.8.10.4. Organizations have many differing forms of management - in some the Controller may not have a responsibility for Programming and Budgeting:

Controllership	Treasury
Programming & Budgeting	Cash Collection
Financial Accounting	Payments
Costing, etc.	Banking Operations
Billing, Receivables	Debt Management
Inventory/control	

4.2.8.10.5. Finally, it should show established posts/salary levels, and posts occupied and vacant. The borrower should be notified of any concerns about inadequacies, or changes required in the management accounting system to achieve satisfactory project implementation.

4.2.9. Non-Revenue-Earning Projects

4.2.9.1. Introduction

4.2.9.1.1. The following topics, relating to non-revenue-earning projects, are examined in this section:

- Financial Management and Accounting Systems
- Government Accounting
- Executing Agency (EA)
- Planning and Budgetary Control
- Financial Accounting and Costing
- Internal Control Systems

4.2.9.2. Financial Management and Accounting Systems

4.2.9.2.1. For non-revenue-earning EAs, the design and installation of the initial financial management system should usually provide for the necessary accounting procedures throughout project implementation.

4.2.9.2.2. However, to save expenses, it may be useful to design and install a system that can be readily converted for use during implementation. At project preparation the financial analyst should either ensure that an existing system would be adequate for the intended purposes or not. If the system is inadequate the EA should design and install a system that will be operational when the project starts, and can be expanded, if necessary, as the demands on it increase.

4.2.9.2.3. In non-revenue-earning projects, financial management and accounting systems should be kept simple. An analytical cash book (showing the sources of funds) with payments-out classified by project activity and payee, could form, a satisfactory basic accounting tool with which to begin operations. It could be supplemented by additional documents (e.g., asset registers, contract registers, inventory systems) as the needs for these arise during implementation.

4.2.9.2.4. The staff required to carry out initial operations could also be minimal; one or two competent account clerks or bookkeepers may be enough for each operational center until full-scale operations commence. Their supervisor could initially be the project manager, assisted if necessary by an accounting technician or an accountant.

4.2.9.2.5. A basic system should include internal controls, which divide responsibility between those who approve budgets, authorize allotments, approve budgeted expenditures, make payments from cash resources, keep the books of account, and reconcile cash and bank balances with the books of account. If the staff is not large enough to meet this minimum division of responsibility, devices to provide minimum security such as requiring two persons to execute each action jointly, should be used (e.g., two signatures on checks; two responsibility levels for posting account books and balancing).

4.2.9.2.6. Government departments or agencies implement most non-revenue-earning projects. The checklist that follows is designed to facilitate examination of typical government budgeting, accounting and internal control systems, and should be read in conjunction with Reviews of Revenue-Earning EAs. The latter contains detailed recommendations for reviews applicable to both forms of projects.

4.2.9.3. Government Accounting

4.2.9.3.1. Most non-revenue-earning projects will be executed by entities that are part of a government, or government-controlled, government-sponsored bodies (e.g., cooperatives). Any existing financial regulations on the operation of financial management and accounting systems should be reviewed to ensure their compatibility with ADB's requirements. Any amendments to regulations should be made only to strengthen an EA's internal systems, in addition to supporting the project.

4.2.9.3.2. Before each project is started, the financial analyst must achieve a complete understanding of the principles, rules and operations of the management, accounting and budgetary systems. Government systems may include what appear to be overly bureaucratic prepayment checks; repetitive bookkeeping at different levels and locations; performance delays caused by a seeming lack of delegated responsibility; and “old-fashioned” regulations.

4.2.9.3.3. Dismantling existing checks and balances in systems, without (a) understanding the consequences; and (b) substituting adequate new measures - without the necessary trained staff to implement them - can cause more trouble than the existing deficient systems. Improvements in government budgetary and accounting systems should only be recommended and implemented when the analyst, the operating staff and the government (and the government auditor in many countries) are mutually satisfied that the changes are beneficial and operable. There should be assurance that adequately trained staffs are available to operate the new systems.

4.2.9.3.4. As the largest collectors and distributors of funds in a country, governments require sound financial management systems, with mandated methods of budgeting and accounting. The Cash accounting basis has been the normal accounting practice for most governments (as compared to the Accrual basis for commercial practice, including parastatals).

4.2.9.3.5. An EA, which is part of a government administration, would normally adopt the government’s systems of budgeting and accounting, unless the government and ADB staff can agree that a specialized form of project accounting would be beneficial to the government. Therefore analysts should recognize and report in the Aides Memoire and BTORs of the Identification and Preparation missions (as well as in the RRP) that the systems to be used are adequate and acceptable to ADB.

4.2.9.3.6. The responsibility for government accounting and budgeting services varies among countries, and must be determined as part of project identification, in order that missions can identify locations of the authorities for obtaining agreement to modifications to a particular system. An Accountant- or Comptroller-General may be responsible, or in other countries, the Ministry of Finance may determine the budgetary and accounting practices.

4.2.9.3.7. Because there is no consistency, analysts must not assume (i) that the system with which they are familiar in one country also applies identically in another and (ii) that EA staff are fully conversant with the responsibility-levels and authority in their own country. (The Auditor-General’s Office or equivalent may be the most reliable source of information on the subject).

4.2.9.3.8. The senior financial staff of a recognized government accounting service should hold responsible roles (e.g., accountants-general), from which they can influence the development and maintenance of sound accounting practices.

4.2.9.3.9. The existence of these services cannot, however, be taken to imply that government practices are automatically sound and acceptable for prospective EAs. Prescribed government practices may have been unofficially modified at the local level because they are too detailed, misunderstood or ill supervised.

4.2.9.3.10. Analysts should familiarize themselves with the precise roles which responsible officials play in controlling and monitoring the performance of accounting in government before seeking their assistance on specific project accounting matters.

4.2.9.3.11. The term “accountant” in government often has a very different meaning or interpretation from “public accountant” in the private sector. An accountant-general may be a designation for an official post, whose incumbent may have little or no knowledge of finance and accounting.

4.2.9.4. Executing Agency (EA)

4.2.9.4.1. The status of an EA should be established to determine, in particular, its ability to:

- budget for and obtain budget approvals for required funds;
- furnish funds promptly for project implementation and operation and maintenance;
- institute, operate or amend financial accounting systems to respond to ADB requirements;
- provides the necessary staff, with requisite skills, for project implementation; and
- institute satisfactory internal and external controls and audit arrangements.

4.2.9.4.2. To the extent that any of the above requirements is outside the agency’s jurisdiction, analysts should conduct the examination with the responsible institution(s) to ensure either their agreement to fulfill the requirements promptly or to delegate to the agency the right(s) to implement them during the project period.

4.2.9.5. Planning and Budgetary Control

4.2.9.5.1. The reviews relating to annual budgets and budgetary control recommended in section 4.2.8.3 are also appropriate as far as they apply to a non-revenue-earning project. Experience with these projects, however, emphasizes the importance of determining the budgetary system that will apply during the project period.

4.2.9.5.2. At Project Identification, staff should be satisfied that they fully understand the system and that they have obtained (or can obtain at negotiations) agreement on the: (i) budget procedures to be used by an EA and/or by controlling institutions which give higher level approvals and which will ensure timely and adequate project implementation; (ii) timing of all budget framing and approval operations to ensure annual allocation and release of funds, and (iii) timing of release of counterpart funds provided in budgets.

4.2.9.5.3. If a borrower's fiscal year in which the project is due to begin starts before the date of loan effectiveness, it is essential to ensure that the budget for project start-up (including the costs of operating the EA and its accounting system, and of engaging auditors) is available for the initial fiscal year.

4.2.9.5.4. The availability of such provisions should be confirmed in the RRP. If there are no budget provisions, the RRP should describe how the project would be funded pending budget authorization.

4.2.9.6. Financial Accounting and Costing

4.2.9.6.1. It is preferable that an EA maintains at least the records specified in section 4.2.9.8, but in some accounting systems (particularly those of governments) many such records – particularly control accounts - may not be maintained. Typical government accounts may reflect only budget heads for services.

4.2.9.6.2. A project or project component may utilize only one line in an expenditure “block,” or it may even be contained with other items in a one-line entry. Unless ADB staff make early requests for more detailed reporting, project subcomponent expenditures may be impossible to control when the project starts. When a government budgetary and accounting system is to be used, it is useful to decide the details of project expenditures for which regular reporting will be required, and whether these can be introduced into the accounting or costing system without difficulty.

4.2.9.6.3. If they cannot, then the borrower and/or the entity should be asked to establish a subsystem to meet ADB's accounting and financial reporting requirements. An EA should be encouraged to use the resultant totals of a subsystem to support or reconcile the data in the standard system; i.e. the subsystem should become an integral costing system of the main accounting system.

4.2.9.6.4. EA systems must be capable of clear and timely disclosure of: (i) cumulative and annual project costs by components agreed on between ADB and the EA for each project; (ii) operating costs by budget heads analyzed in sufficient detail to provide control

of incremental current expenditures; and (iii) the basis for all types of claims for disbursement of ADB loans.

4.2.9.6.5. The first item above is particularly important in government accounting, where asset records covering a period of years are not often maintained. It is also important that the analyst ensures that the auditor will provide an audit opinion and report in a form satisfactory to ADB if non-standard systems are introduced.

4.2.9.6.6. ADB may agree to finance incremental recurrent expenditures, i.e., expenditures above a particular level established at an agreed time with a borrower. Government accounting systems may not distinguish between base and incremental expenditures, particularly in the case of salaries, wages and related overheads. It is therefore necessary to coordinate with an EA the formulation of adequate means of identifying both budgetary provisions and accounting data that can provide for and report on these expenditures. The following steps could be taken:

- estimate at appraisal the incremental current expenditures, and associate their incidence with the tracking of implementation of physical inputs/outputs of the project and reimburse a fixed percentage of total actual expenditures from each agreed category of incremental expenses;
- establishing appropriate accounting for special heads of expenditure, subcodes, subsystems and special reports;
- agreeing on accounting for only the main heads of expenditure concerned and developing a formula for periodic application to total expenditures under those budget heads to obtain a reasonable apportionment of incremental expenditures; and
- continuously revising base and incremental costs.

4.2.9.7. Internal Controls

4.2.9.7.1. Any system to support a project should include basic internal control measures. If the internal checks and control systems are not satisfactory, and the effectiveness of the external audit is not established, then the project should not be allowed to proceed until the borrower and/or EA has agreed to strengthen the internal control systems.

4.2.9.7.2. Government auditors are normally responsible for the audit of the EAs that perform non-revenue-earning projects. Therefore it may be appropriate to seek their advice and experience with regard to the efficacy of internal controls in a particular system. Their involvement may help to introduce any necessary tightening of controls, as well as encouraging their active involvement in surveillance of the systems for project

implementation. The financial analyst may best achieve this by providing the government auditor with a copy of the loan agreement immediately after its signing and discussing the audit requirements.

4.2.9.8. A Simple System for a Non-Revenue-Earning Project

4.2.9.8.1. The following is a simple system for a non-revenue-earning project. It should be modified as necessary to meet the requirements of each project as well as the adequate and timely delivery of required financial information to the borrowers and ADB.

- Project Entity Bank Account Record, by categories of expenditures
- Project Entity Cash Payment Record, by categories of expenditures
- Record of Project Expenditures incurred but not paid by categories of expenditures
- Record of Project Expenditures by Third Parties by categories of expenditures
- A Summary of the above to produce Total Project Expenditures by categories of expenditures
- Record of Sources of Project Financing including ADB (and other lenders) Loan Disbursement Claims

4.2.9.8.2. In addition, it is desirable that a simple General Ledger be used to record at regular intervals the totals of payments (by week or by month) using checks and cash, and funds received. This ledger, in addition to establishing summary accounts for the above transaction accounts, should include accounts for: assets; liabilities; contracts; and currency transactions.

4.2.9.8.3. Corrections and adjustments to the data entered in the basic records can be made at any time prior to entries being summarized in General Ledger entries. Changes to be made on data already recorded in the General Ledger will need special entries in that ledger, preferably through the use of a Journal.

4.2.9.8.4. ADB's Loan Disbursements Handbook is available from the Knowledge Management section of the web-based Guidelines. The Loan Disbursements Handbook provides guidance for financial analysts on Imprest Accounts, Statements of Expenditures, and Accounts and Audit generally for projects.

4.3. Financial Analysis

4.3.1. Introduction to Financial Analysis

4.3.1.1. This Financial Analysis Section contains methods of preparing and assembling data for financial analysis. The analysis is to provide a quantitative and qualitative examination of the financial operations of revenue-earning and non-revenue-earning projects in the public and private sector and, where appropriate, EAs (It may be noted that for non-revenue-earning agencies, an analysis of the EA is rarely required).

4.3.1.2. This quantitative and qualitative examination is designed to: (i) assess the financial viability of a proposed investment in a project; (ii) assess the financial viability of a project, including during implementation, at commissioning and after completion; (iii) illustrate the financial structure of an EA, and its existing and potential financial viability, including the financial efficiency and effectiveness of its operations with and without the project; (iv) assess the adequacy of the financing plan for the project; and (v) advise on methods of improving the financial viability and efficiency of an EA including the appropriateness of tariffs, prices and cost recovery generally, and on the financial arrangements, conditions or loan covenants which should be required as conditions of ADB financing, and the extent of a borrower's compliance therewith.

4.3.1.3. This section illustrates, in particular, approaches to the analysis of revenue-earning projects and EAs, because these are the most complex forms of analysis likely to be required. The illustrations of sound financial management and analytical practices herein should be modified to meet the requirements of each project. They are not intended to substitute for the financial analyst's judgment as to the best method of presentation in each case, nor are they intended to define precise financial measurement criteria for a project or, where applicable, an EA.

4.3.2. Financial Analysis Objectives

4.3.2.1. Introduction and Objectives

4.3.2.1.1. This section examines the following topics:

- Financial objectives of a public sector project
- Financial objectives of a private sector project
- Using financial analysis to identify achievement indicators (Using financial analysis to generate financial indicators to demonstrate efficiency in the achievement of objectives)
- Economic objectives.

4.3.2.1.2. The primary objective of financial analysis is to forecast and/or determine the actual financial status and performance of a project and, where appropriate, of the EAs. This is to enable ADB to combine that information with all other pertinent data (technical, economic, social, etc.) in order to assess the feasibility, viability, and potential economic benefits, of a proposed or continuing lending operation.

4.3.2.1.3. A secondary objective is the provision of technical assistance to a borrower and an EA to enable them to make similar assessments for the project and to apply the techniques to other non-ADB investments.

4.3.2.1.4. A tertiary objective is to encourage borrowers and EAs to make any necessary changes to their institutional and financial management systems to facilitate the generation of appropriate data to support good financial analysis.

4.3.2.1.5. The objectives of financial analysis as set out above are intended to measure the achievement of financial objectives of a borrower, the project to be (or being) financed, and its EA.

4.3.2.2. Financial Objectives: Public Sector Project

4.3.2.2.1. Public sector projects are classified as revenue-earning and non-revenue-earning.

Revenue-earning Projects

4.3.2.2.2. A principal objective of revenue-earning projects is the achieving of financial viability of revenue-earning EAs (REEAs). This has two purposes. First, to enable self-sustainability and to achieve a degree of autonomy in their day-to-day operations to encourage better management. Second, to relieve governments from as much of the financial burden as possible associated with the continuous provision of scarce public funds.

4.3.2.2.3. The provision of these latter funds contributes to the scope of the government budget deficit and is therefore likely to be inflationary. Increased taxation, borrowing and/or reduction of other forms of public expenditure may finance them.

4.3.2.2.4. The pursuit of certain financial goals by a REEA can also be seen as a means of stimulating managerial efficiency. If financial viability were to be ignored, the incentive to hold down costs may be weakened, if not removed. Adequate levels of (real, i.e., cash) revenues earned from the sale of their services should enable REEAs to have a satisfactory financial performance. It generally indicates an ability to generate sufficient revenues to

cover operating and maintenance costs, renew assets, service debt, pay dividends on equity capital, where appropriate, and finance a reasonable proportion of their capital expenditures from internally generated funds.

4.3.2.2.5. REEAs are sometimes required to generate additional revenue in order to supplement national resources for investment. Experience in some DMCs, however, suggests that the continuing financial losses made by many REEAs may not make them satisfactory tools for resource mobilization, unless government is willing to enforce the use of effective tariffs and revenue collection.

4.3.2.2.6. Tariffs should permit a level of financial performance that would enable a REEA to operate efficiently and on a continuous basis, providing that the collection of revenues continues to be efficient.

4.3.2.2.7. Financial analysis is used at the design and appraisal stages of a project to define financial performance. Throughout implementation and commissioning, it is used to measure, by use of financial indicators, the EA's performance in delivering the project according to design estimates. Financial analysis is used to measure the operational performance and achievement of financial objectives. The analysis should examine; (i) ongoing operations during project implementation (where these are present); and (ii) the combined performance of ongoing operations and the new project following commissioning through the life of the ADB loan.

Non-Revenue-Earning Projects

4.3.2.2.8. A principal objective of non-revenue-earning projects is the achievement of the financial and economic goals of a project. This has three purposes. One is to enable the project to deliver the forecast benefits at the price(s) estimated at time of design and financial and economic evaluation. A second objective is to achieve a degree of efficiency in the EA's implementation operations to encourage better management of the development of the project. A third objective is to minimize the government's financial cost to reduce as much as possible of the financial burden associated with the continuous provision of scarce public funds.

4.3.2.2.9. As for revenue-earning projects, financial analysis is a key tool in defining and measuring the achievement of financial objectives.

4.3.2.3. Financial Objectives: Private Sector Project

4.3.2.3.1. The financial objectives of a private sector project are similar to those of a public sector revenue-earning project, except that the owners, stakeholders and

management of the enterprise are substituted for the government. Unlike governments that may have access to temporary funds to sustain a financially ailing public utility EA, the owners and management of a private company are quickly judged by market forces as to their financial capability and competence.

4.3.2.3.2. One result could be that project financial failure, either during implementation or during operation, would deter actual and potential investors to the point of withdrawing all financial support. Therefore effective and efficient use of financial analysis to define and apply the most appropriate performance indicators is imperative. In addition, the continued utility and effectiveness of indicators should be continuously reviewed to ensure that management obtains the most effective information for decision-making throughout implementation and operations.

4.3.2.4. *Using Financial Analysis to Identify Achievement Indicators*

4.3.2.4.1. The financial performance of a public and private sector EA should normally be measured by the use of at least one indicator selected from the range of the following groups of indicators derived from the financial analysis of a project and its EA: (i) operating; (ii) capital structure; and (iii) liquidity.

4.3.2.4.2. ADB seeks to agree with a borrower on the covenanted use of one or more key indicators. In addition, the borrower/EA should be asked to agree to the use of non-covenanted indicators in periodic financial reporting.

4.3.2.4.3. This means that if only one indicator from one of the three categories of indicators above would be the subject of a loan covenant, the remaining indicator or indicators from each group above recommended by the financial analyst should be the subject of periodic reporting.

4.3.2.4.4. Additional indicators should be developed whenever necessary to measure specific performance.

4.3.2.5. *Economic Objectives*

4.3.2.5.1. The efficient allocation of resources is an important consideration in pricing policy, particularly for REEA services. Financial analysis is used to describe the impact of such a policy.

4.3.2.5.2. It is desirable in DMCs where the alternative is the additional output that could have been generated and which the countries could ill-afford to give up.

4.3.2.5.3. Economic theory suggests that efficient allocation of resources is achieved when price equals the marginal cost of supplying the service, that is, the increment to the total system cost of producing and delivering an additional unit of output under specified circumstances.

4.3.2.5.4. Some outputs of an REEA's service are often valued highly by a majority of consumers and exceed the cost of supplying it. Other uses are less valuable, and the quantity consumed for these uses will depend on the price charged by the REEA. For an efficient allocation of scarce resources, consumption should be encouraged when its valuation by consumers exceeds the added cost of supply, and discouraged whenever it is not the case.

4.3.2.5.5. This balancing of added benefits with added costs may be achieved by establishing prices equal to the marginal costs of supply and relying on consumers to equalize benefits and costs at the margin. In other words, the cost-benefit analysis is decentralized and each consumer is left to decide what quantity they would like to consume and when.

4.3.2.5.6.. Economic theory also suggests that important divergences between social costs and benefits on the one hand, and market price on the other (due for example to external effects) should be taken into account, and that public enterprise investments should be evaluated in terms of opportunities for investment or consumption foregone elsewhere in the economy.

4.3.3. Linkages with Cost Recovery and Tariffs

4.3.3.1. Introduction

4.3.3.1.1. Readers are recommended to review the Table of Contents of ADB's Guidelines for Economic Analysis when addressing Cost Recovery. In particular, reference should be made to Appendix 22: User Charges, Cost Recovery, and Demand Management: An Example for Piped Water.

4.3.3.1.2. Efficient cost recovery impacts on economic and financial analysis of projects, and it is essential for the financial analyst to have a comprehensive understanding of the issues. Not least, the analyst must ensure that the cost element of cost recovery is the lowest economic and financial cost commensurate with the highest levels of efficiency of performance. Recovery of unreasonable costs must be avoided.

4.3.3.1.3. Both financial and economic project analyses are closely related, and in practice both involve, among others, the calculation of internal rates of return. Both

types of analysis are conducted in monetary terms, the major difference lies in the definition of costs and benefits.

4.3.3.1.4. Financial analysis evaluates the commercial viability of a project from the viewpoint of the project entity; that is, all expenditures incurred under the project and revenues resulting from it are taken into account. This form of analysis is necessary to assess the degrees to which a project will generate revenues sufficient to meet its financial obligations.

4.3.3.1.5. In practice, it is typically necessary to establish the financial viability and profitability of the project and of its parent public or private sector enterprise by determining all expenditures of the latter with the project, and the total revenues earned (and collected) from all sources.

4.3.3.1.6. The principles of financial cost recovery should be based on one or more of the following, as appropriate to the project, public or private sector enterprise, and sector concerned: (i) full-cost recovery; (ii) cost reductions commensurate with increased efficiency to reduce demands on revenues; (iii) a need to generate contributions to ongoing and/or future investments; (iv) achievement of income redistribution and/or generation of additional income for specific beneficiaries; (v) the minimization of waste which low-cost recovery policies tend to promote; (vi) the containment of demand where essential goods and services are in short supply; (vii) the need to raise additional public sector revenues; and (viii) the encouragement of financial discipline and efficient management.

4.3.3.1.7. Factors or criteria to determine full-cost recovery include: (i) recovery of long-run or short-run marginal costs, as appropriate to the EA and/or sector; (ii) the need to cover total financial costs where these exceed those above; (iii) the extent of additional fiscal resources requirements over and above the two factors above, for purposes of income redistribution within the sector; for related sectors; or for general budget support; and (iv) incremental financial costs (and the reasonableness thereof) for achievement of the third factor above.

4.3.3.1.8. Although, ADB's cost recovery principles center on full-cost recovery, it recognizes that in some cases, financial, distributional, and national fiscal considerations may require a flexible approach, albeit compatible with promoting efficient operation of the public sector enterprises responsible. Such cases may involve health and other social sectors, and projects involving the introduction of new techniques, etc., where less than full-cost recovery may be desirable in the short or medium term. However, whenever less than full-cost recovery is proposed, this must be disclosed and justified in the Aides Memoire and BTORs of a fact-finding or appraisal mission, and in the RRP.

4.3.3.1.9. Where an activity, such as sewerage operations, may appear to have difficulty in achieving full-cost recovery, it should be linked whenever possible with an allied activity or service of the enterprise to achieve such performance. In the case of sewerage, its principal activity is wastewater removal, which can be directly related to water consumption. An integrated tariff policy to recover water supply and sewerage costs should be developed which would achieve at least full cost recovery. Similar activities include rural electrification for irrigation systems which can be recovered through the overall tariff structure by cross subsidies; rural roads which can be recovered through adjustments to vehicle import or operating taxes.

4.3.3.1.10. These latter cases typically give rise to valid concerns where the technical problems and costs of installing and operating charging mechanisms could exceed benefits. The Knowledge Management section of the web-based guidelines provides a copy of the useful OECD publication *Best Practice Guidelines for User Charging for Government Services*.

4.3.3.2. Cost Recovery Systems: Introduction

4.3.3.2.1. Private sector entities, because their primary financial objective is to earn a return on invested capital, would be expected to seek full-cost recovery, albeit they may from time-to-time charge less-than-full-cost as a means of encouraging development and introduction of new products.

4.3.3.2.2. For public sector entities, there is no absolute rule as to a sector/subsector when less-than-full-cost recovery may be acceptable. A useful guide is provided in ADB's Subsidies Paper. This recommends sectors and circumstances when subsidies may be acceptable, and therefore less-than-full-cost recovery can be proposed for a project.

4.3.3.2.3. Generally there are two options available for full-cost recovery, namely the pricing by user charges of products and services produced (typically using tariff-structured charges); and benefit taxes that are levied directly (wherever possible), or indirectly, on beneficiaries. Vehicle or gasoline tax, and land taxes, are typical benefit taxes.

4.3.3.2.4. The selection and use of the appropriate mechanisms should be a matter of practical convenience, e.g. where a system is already in place and which either works, or could be made to work with minimum investment; rather than enforcing a principle. In water supply utilities, it is frequently a principle that domestic water consumers should always pay for water by measured consumption.

4.3.3.2.5. However, where by local practice a property-value based water tax can yield the necessary revenues, this may be a more suitable mechanism. (This may occur where the availability of groundwater is sufficiently abundant to prevent the installation of

metering systems, which are the most effective form of recovering the cost of water supply benefits.)

4.3.3.2.6. Similarly recovery of domestic refuse collection costs may be more readily recovered through a general municipal property tax, but removal and disposal of trade wastes can often be charged direct to beneficiaries, typically using a price per container per collection. However, while expediency for achieving efficient recovery as suggested above is desirable (and useful in many cases), the use of pricing as a means of limiting or redirecting consumption must be actively considered.

4.3.3.2.7. A property tax based water charge will not inhibit consumption. Therefore in conditions of constrained supply and high long-run marginal cost, the recovery mechanism adopted should contribute materially to the attainment of objectives; in this case by charging on a consumption basis, and restraining consumption and thus deferring the need for future investments. This particular approach requires that (i) metering systems are efficient; (ii) illegal connections are prevented; and (iii) the tariff structure effectively constrains high consumption levels by incremental pricing.

4.3.3.2.8. In some sectors, traditional arguments are sometimes used to claim that pricing of a commodity is impossible for reasons of unacceptable costs. These must, however, always be demonstrated. For example, failure of irrigation systems to effectively measure and price water consumption continues to result in overbuilding of such systems in some countries, with resultant misallocation of resources.

4.3.3.2.9. It is frequently argued that the costs of installation and maintenance exceed the building costs, but these should be fully demonstrated during project fact-finding, and justified in the Identification/Preparation Aides Memoire/ BTORs and the RRP.

4.3.3.2.10. It should be noted that user charges might, in some cases, inhibit the attainment of objectives. Charges for sewer connections, while having merits as a revenue source, may deter potential users from making connections. This may be overcome in some municipalities by imposing penal property taxes payable until sewer connections are made. Excessive industrial power line and connection charges have caused industrialists to install generators with loss of the benefits of scale of production, while high domestic connection fees typically encourage illegal connections.

4.3.3.2.11. The equity principle must be observed. Public utilities sometimes favor providing services to the more affluent sections of a population, partly on the grounds that cost recovery is likely to be more effective, and that delivery to, and servicing of these domestic consumers is generally more simple and cost-effective. However, research into these situations often shows that the poor, ill-serviced population are paying, and

will continue to pay, considerably more per liter for their limited supplies of water, either by bottles, or through tankers or venders, than the more affluent sections who are already served (albeit insufficiently) or will be provided with water supplies by the proposed project.

4.3.3.2.12. Social benefit must not be sacrificed for financial expediency. Sound project design should call for an equitable distribution of benefits, including the use of cross-subsidies, where necessary, to provide the largest volume of benefits to the most deprived sectors of the population concerned.

4.3.3.3. Cost Recovery Systems: Social Sectors and Services

4.3.3.3.1. In sectors that support the delivery of social services, including poverty relief, health services, education, agriculture extension, etc., cost recovery is not normally sought because they have been regarded as public services to be financed from general taxation. While this practice is likely to continue for many years, particularly for the poorest sections of a population, increasing pressures on national budgets may force the development of forms of user charges.

4.3.3.3.2. While some may be introduced to reduce budget deficits, others may be used to cut back demand for frivolous or unnecessary services or to re-direct demand for services for which a section of the population could pay. But because user charges applied in such sectors will probably have the effect of demand reduction, their introduction needs to be designed with much care.

4.3.3.3.3. Income and social studies may be needed to identify and to target the elements of services and population groups to be addressed.

4.3.3.3.4. User charging assessment and collection methods should be examined for feasibility and costs, as part of cost/benefit studies to determine viability of such schemes. Comparing the demand, supply, and costs of ongoing, parallel private sector schemes that provide similar service can develop validity tests of such studies. As an example, private sector fee-paying education facilities sometimes rival state systems, which may be of lower quality due to lack of funding.

4.3.3.3.5. Measurement of likely demand for equivalent-level state schemes may reveal the feasibility of charging for partial, or all, services in a particular stream of training, without undue hardship, especially if the constraint is lack of facilities instead of consumer resources.

4.3.3.4. Cost Recovery Systems: Summary

4.3.3.4.1. The financial analyst must be aware of the underlying economic principles of cost recovery, and:

- contribute to the design of projects which achieve full cost recovery for the sectors in which ADB specifies this criteria
- be prepared to participate in the design of appropriate recovery systems, or utilize/modify existing systems to achieve efficient recovery
- keep in mind the various impacts that cost recovery systems generate, in order to avoid adverse side effects; and
- in those sectors for which cost recovery has not normally been sought, be prepared to develop charging systems which can enhance poverty reduction and social development.

4.3.3.5. Tariff Policy

4.3.3.5.1. ADB does not have a prescriptive policy on formulation and operation of tariffs for public and private sectors. It relies on the skill and experience of ADB staff and experienced consultants to develop appropriate tariffs for revenue-earning EAs, and to report their findings and recommendations in RRP and Supervision Reports.

4.3.3.5.2. An October 2000 ADB Workshop identified the following as the most intractable issues and problems (in descending order of intensity) likely to be encountered in formulating tariffs for electricity utilities: (i) Country differences; (ii) Lack of commonality among definitions; (iii) Achieving consensus among politicians, administrators, economists, engineers, and financial analysts, etc; (iv) Country political differences; and (v) Ownership.

4.3.3.5.3. In 1985, the African Development Bank published its policy on tariffs and cost recovery. This document is available from the Knowledge Management section of the web-based Guidelines. While many years have passed since its publication, much of the advice and guidance relating to tariffs and cost recovery continues to be relevant. The emphasis is primarily on the sufficiency of revenues to finance operations and debt service, and perhaps there may be insufficient reference to the need to develop means of cost reduction to avoid increasing tariffs and rates.

4.3.3.5.4. Readers are also recommended to review the Table of Contents of ADB's Guidelines for Economic Analysis when addressing Cost Recovery and Tariff Policies. The Knowledge Management section of the web-based Guidelines also contains a PowerPoint presentation on Principles of Tariff Design. The presentation sets out the principles to be explored and applied when developing a tariff for a public/private utility.

4.3.4. Preparing Financial Tables

4.3.4.1. Introduction

4.3.4.1.1. As a reminder, reference should be made to the Glossary of Terms and Definitions when preparing presentational material for ADB reports involving financial data. This will ensure consistent presentation across ADB, and also encourage borrowers to use such terms and their interpretations in the interests of improving financial management.

4.3.4.1.2. Footnotes should be used to explain little-used terms or terms of an ambiguous nature. Cross-referencing should be used within any report, and between the document and any Attachments or Appendixes. The Knowledge Management section of the web-based Guidelines provides an Excel Workbook containing examples of Summary Tables and Detailed Tables of Balance Sheets, Income Statements and Cash Flow Statements.

4.3.4.2. Preparing Summary Financial Tables

4.3.4.2.1. Summary tables may be used to display the key elements of financial analysis in its various presentational forms. This may take the form in one consolidated summary of the financial history, current performance and status and forecast performance of an EA, together with trends and definitive data, ratios, and performance indicators.

4.3.4.2.2. Summary tables should be inserted adjacent to the textual material in a report to which a summary table refers. Past, present and future performance, and status data may be combined in one summary.

4.3.4.2.3. The use of summary tables should not be substituted for detailed tables in an Appendix to a report where the latter are necessary to disclose significant information to support a project and loan. Conversely, the presentation of lengthy summary tables in the Financial Chapter of an RRP covering many years of past and future performance may be confusing to readers.

4.3.4.2.4. The optimum presentation is the one that conveys the maximum information in the minimum of space, without sacrificing accuracy and intelligence.

4.3.4.2.5. The Knowledge Management section of the web-based Guidelines provides examples of summary tables, including a:

- Balance Sheet
- Income Statement
- Cash Flow Statement, and
- Financial Summary.

4.3.4.2.6. The examples provided are for a service-type organization and for a manufacturing organization. The examples should be modified appropriately to reflect the nature of each project or EA.

4.3.4.3. Preparing Detailed Financial Tables

4.3.4.3.1. The Knowledge Management section of the web-based Guidelines provides examples of detailed tables, including a: (i) Detailed Financing Plan, and (ii) Project Cost Table. As in the case of the summary statements above, the formats are not sector-specific and for presentation in an Appendix to an RRP, they should be drawn up to reflect the financial reporting characteristics of the sector concerned.

4.3.4.3.2. Supplementary information may be given in additional tables (e.g., to demonstrate a tariff structure and the revenue streams which the components are forecast to generate – all of which may be presented as a single line entry “Revenues” in an Income Statement). The adopted format should best demonstrate the potential for achievement of project objectives.

4.3.4.4. Demonstrating Past (Actual) and Future (Forecast) Performance

4.3.4.4.1. Detailed financial statements may be prepared to illustrate: (i) past performance; and (ii) forecast future performance. Alternatively, these sets may be combined in statements extending from two to three years before Board presentation through the completion of a project, or through the years required to reach full capacity. A primary concern is to be able to display the results of at least two years audited annual financial statements as the basis for the forecasting. This latter combined format, however, may make it difficult to provide adequate and consistent referencing to subsidiary data.

4.3.4.4.2. The principal recommended presentations relate to projects and their revenue-earning EAs. These presentations while illustrating the performance of the EA should also specifically display the status and performance of the project while under implementation and in operation.

4.3.4.4.3. Presentations are required to demonstrate the performance and status of non-revenue-earning projects, and where appropriate, their EAs. There are no standard

presentations for the wide range of these non-revenue-earning projects and agencies, but a possible example is provided in a Model Project Financial Statement for non-revenue-earning projects and agencies.

4.3.4.4.4. The examples of formats referred to in this section reflect principles of good presentation, but are not intended as rigid models. They should be applied in a flexible manner, and will vary in content and arrangement to meet the requirements of a particular project or sector.

4.3.4.4.5. These statements should be compiled in accordance with International Accounting Standards (IASs) even though in structure they may reflect the accounts classifications and financial reporting methods of the EA under appraisal. Alternatively, tables can be prepared on the basis of the local accounting standards used by the EA, but the text or footnotes must disclose the deviations from IAS, and the impacts on the financial statements (i.e., the differences in reported data that arise by reason of adopting the local standards compared to IAS).¹⁰

4.3.4.4.6. In an EA whose accounts and procedures do not conform to these standards; or to the country's generally accepted accounting practices (GAAP) which is acceptable to ADB; or where the latter GAAP are inappropriate for presentation of financial analysis, actual and forecast data should be presented on the basis of the staff's judgment of reasonable practice. Where the presentation departs from the EA's existing procedures, the report should explain the changes made.¹¹

4.3.4.4.7. Where restatement is extensive, however, during future supervision, comparison of actuals with forecasts may be impossible without preparing an additional set of forecasts reflecting the entity's accounting practices; these forecasts should be included in the Project File.

4.3.4.4.8. ADB recognizes and uses IASs for financial analysis and presentational purposes. Because ADB prefers the use of IASs, these normally should form the basis of its financial covenants.¹² Therefore, if presentations of financial information are made in RRP's and other project-related documentation, such as an Aide Memoire, in which the data is not compiled on the basis of international standards, the definitions to be used in determining financial performance to measure compliance with financial covenants must be based either on: (i) the accounting standards used in the RRP and which are also used as the basis for the financial covenant ratios, and this fact should be duly noted in

¹⁰ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

¹¹ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

¹² Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

the minutes of loan negotiations for purposes of measuring compliance; or (ii) the financial covenants' ratios should be based on IASs, and the factors necessary to convert local standards to IASs for purposes of measuring compliance with the covenants should be stated in the minutes of loan negotiations.

4.3.4.4.9. When preparing a financial statement, which illustrates past, present and forecast performance, a decision may need to be made on the most appropriate subsidiary presentations to support data, recommendations and conclusions in the RRP. The objective should be to present data in the clearest possible form; this may be feasible only by using a combination of methods (annotations, footnotes, or separate appendixes). In that event, explicit and clear indicative referencing should be used to ensure that readers are not misinformed and are easily directed to supporting information.

4.3.4.5. Preparing Income Statements

4.3.4.5.1. Income statements can be presented in summary or in detail, depending on the requirements for the presentation in the form of report (for example, the RRP). The following matters should be considered when preparing detailed income statements:

- data for each year are to be defined as Actual or Forecast
- presentations normally should follow the accounting and financial reporting format adopted by the EA, and
- operating revenues and operating costs presentations will vary widely by sectors, and should detail the specific forms of revenue and costs typically used in the sector. Significant variations in format may occur:
 - where an agency has inventories produced and held for sale
 - when the operating revenues section should show the gross profit arising from gross sales revenues after meeting the cost of sales; and the operating revenues section should show the gross profit arising from gross sales revenues after meeting the cost of sales
 - where an agency chooses to present the operating expenses under objective headings (e.g., bulk storage of water, transmission, distribution, etc., all of which include labor, materials, transport, fuel, etc.)

4.3.4.5.2. These latter categories are often presented as subjective headings, without reference to the objective headings. Either presentation may be acceptable, depending on the objectives of the agency and the project.

4.3.4.5.3. The following information and analyses should be provided with the income statement:

- unit volume: the basis for volume forecast should be described and related to the EA's output capacity and market demand
- operating revenues: describe significant past and expected changes in selling prices, tariffs and composition of sales mix
- operating costs: analyze past trends, and give assumptions for projections in each operating cost category (for example: examination of numbers and types of staff and unit costs; expected costs trends of goods and services; or percentages of revenues or assets where these are the appropriate bases for the forecasts)
- depreciation rates: these may be addressed as balance sheet information
- non-operating section: describe any significant past experience and give assumptions for the forecasts of other income and expenses; relate forecast interest expenses to loans outstanding
- taxes on income: give the basis for income tax charges; in public utilities or other sectors where taxes on income are normally presented as part of operating costs, the presentation shown in the table need not be adhered to
- appropriations from new income: state basis for past appropriations and any assumptions on future dividends, etc.

4.3.4.5.4. The following comparators and ratios are useful for analyzing income statement information:

- Growth rates
- Working ratio
- Operating ratio
- Gross profit as percentage of revenues
- Net income as percentage of revenues
- Operating income or net income as percentage of revenues, and
- Return on average invested capital.

4.3.4.6. Preparing Cash Flow Statements

4.3.4.6.1. A summary cash flow statement should allow users to ascertain how an entity raised the cash it required to fund its activities and the manner in which that cash was used. Cash flow statements classify cash flows during the period from operating, investing, and financing activities. ADB prefers that cash flows are prepared using the Direct Method (i.e., cash flow components are shown directly, such as cash receipts and payments to employees and suppliers, rather than being derived from the income statement and balance sheet). Where the direct method of presenting cash statements is used, a note that reconciles net surplus to net operating cash flows should be provided.

Example of Cash Flow Statement Presentation

(\$'000s)	20X1 Actual	20X2 Forecast	20X3 Forecast	20X4 Forecast
OPERATING CASH FLOWS				
Receipts				
Sales of goods and services	35,134	36,868	39,466	41,397
Interest received	1,070	835	834	901
Payments				
Employees	-12,615	-13,043	-13,428	-13,917
Suppliers	-19,750	-20,920	-20,848	-21,167
Interest paid	-2,507	-2,516	-2,561	-2,502
Other payments	-369	-490	-1,088	-1,684
Net Cash Flows from Operating Activities	963	734	2,375	3,028
INVESTING CASH FLOWS				
Receipts				
Sales of fixed assets	250	125	68	59
Sales of investments	1,983	57	1,071	244
Payments				
Purchases of fixed assets	-1,469	-2,459	-2,808	-3,181
Purchases of investments	-130	-55	-102	-98
Net Cash Flows from Investing Activities	634	-2,332	-1,771	-2,976
FINANCING CASH FLOWS				
Receipts				
Proceeds from borrowing	275	1,477	353	56
Payments				
Repayment of borrowings	-1,900	..	-953	-105
Distributions / dividend payments	..	..	..	..
Net Cash Flows from Financing Activities	-1,625	1,477	-600	-49
CASH AND CASH EQUIVALENTS				
Net increases/(decreases) for period	-28	-121	4	3
Balances as at 1 January	230	210	93	97
Currency changes on opening balances	8	4	..	..
Balances as at 31 December	210	93	97	100
Reconciliation to Income Statement				
Net Surplus per Income Statement	1,449	765	2,205	2,829
<i>Items included in net surpluses but not in net cash flows from operations:</i>				
Unrealized net foreign exchange gains	-66	-87	..	..
<i>Asset movements</i>				
Depreciation	791	872	918	926
Gains/(losses) on sales of assets	-7	3	..	..
<i>Other non-cash items</i>				
Movements in employee benefit liabilities	-936	110	864	1,134
<i>Movements in working capital</i>				
Decrease/(increase) in receivables	-62	30	-69	-34
Decrease/(increase) in inventories	-63	-55	-19	-31
Decrease/(increase) in work in progress	-59	-773	-751	-513
Decrease/(increase) in prepayments	..	..	..	..
Decrease/(increase) in receivables	41	-3	-613	-1,256
Increase/(decrease) in payables	-125	-128	-160	-27
Net Cash Flows from Operations	963	734	2,375	3,028

4.3.4.6.2. The following list identifies matters that may need to be considered when preparing cash flow statements.

- data for each year: should be defined as “Actual” or “Forecast”
- a total column: in order to reconcile the statement with the financing plan, a total column should be inserted to show the aggregate cash flows during project implementation period
- capital expenditures: for the proposed project, reference should be made to the detailed tables showing project cost by year, or to other supporting data in the Project Costs section of the RRP. The following items should be shown separately:
 - the total expenditures on assets;
 - financial charges during development (FCDD) (from whatever sources); and
 - working capital where significant, and particularly for start-up industrial and manufacturing projects.

4.3.4.6.3. The separation of the first and third items should facilitate reconciliation with the project cost table and the addition of FCDD should be reflected in the financing plan.

- Borrowings: data on the ADB loan should be directly related to the data in the table(s) in the RRP showing the detailed schedule of disbursements. Estimates of funds available from other sources should be consistent with the information contained in the discussion of the financing plan. In more complicated financing, the funds statement should be supported by a supplementary schedule showing the forecast disbursement of other loans and equity investments;
- Short-term loans to finance working capital: working capital requirements may be shown net of short-term loans, in which case a footnote indicating the amount of short-term financing being used should be added. On the other hand, such short-term financing may be shown separately as a source of funds with a corresponding increase in working capital needs;
- Debt service: the actual payments estimates of interest and debt repayment should be consistent with the terms of debt explained by notes attached to the balance sheet. Where several loans are involved, an interest expense and debt repayment schedule could be used. Interest payments should be net of financial charges during development (FCDD);
- Equity contributions: these should be classified as amounts contributed by shareholders, the government and consumers, where appropriate. Reference to retained earnings as part of the resource mobilization and cash generation may be appropriate;
- Cash should contain an amount estimated to reflect operational needs. If cash surpluses are planned, for example, as a result of advance long-term borrowing, the

balances may be added to a “short-term investments” account, to distinguish the operational cash needs from the more financially related, tactical funds needs. The use of a short-term investment account is advisable when the surplus cash balances are large and the interest income significantly affects income. If the cash surplus is not planned and not due to fluctuations resulting from management decisions, a separate “cash surplus” account may be used, especially if the balances are large. “Short-term borrowings” may be used as a “balancing liabilities account”, if the funding needs temporarily exceed the funds sources.

4.3.4.6.4. The following are typical comparators and ratios for use in a cash flow statement:

- Debt service coverage, based on the total of loan interest and principal repayments, including interest incurred on work in progress if this is to be financed from net income and not from capital receipts (loan/equity);
- Growth rates; and
- Percentage of capital expenditure financed by internal sources.

4.3.4.7. Preparing Balance Sheets

4.3.4.7.1. A summary balance sheet may be included in the text of a report, appropriately referenced to its sources in the appended tables. It should highlight critical features of an entity’s financial structure, such as its liquidity position, or trends in the growth of fixed assets, equity, and long-term debt.

4.3.4.7.2. The detailed balance sheet should include a detailed listing of matters that may need to be referred to in the report and referenced in the summary table. The following should be considered when preparing this detailed financial statement:

- Data for each year should be defined as Actual or Forecast.
- Surplus cash: where it is assumed that material amounts of funds may be accumulated and available for other capital projects or paid as dividends, the forecast balance sheet should show such cash separately.
- Long-term debt: should be shown in detail, if necessary. Distinguish between local and foreign debt. Current maturities of long- term debt should be deducted and shown under Current Liabilities.
- Current assets and liabilities: working capital requirements should be based on the entity’s practices, together with any changes due to the project; operational cash requirements should be illustrated; and projected cash surpluses or shortfalls should be explained.

- Intangible assets and long-term investments: the basis of forecasts should be stated – particularly any valuation of goodwill on acquisition of other executing enterprises, or justification for the realization and use of long-term investments.
- Fixed assets: the basis for estimating additions to fixed assets in relation to the construction program, revaluation of assets, and any anticipated property retirements should be in accordance with IASs or otherwise explained.¹³ Transfers of capital expenditures to the “plant under construction” and “plant in service” accounts may be based on the assumption that a certain percentage of capital expenditures is “booked” to plant in service each year. In other instances, the transfers may be based on a detailed completion schedule. It is often useful to provide a subsidiary schedule to the balance sheet, showing the transfers from capital expenditures to plant under construction and plant in service, together with the basis for such transfers.
- Accumulated depreciation: rates and bases for depreciation should be stated. Alternatively, they may be shown with the Income statement or in an Assumptions Appendix. Any substantial changes in accumulated amounts (e.g., due to revaluation of assets) should be explained.

4.3.4.7.3. Comparators and ratios for use in a balance sheet include:

- Asset turnover
- Growth rates
- Quick ratio
- Current ratio
- Debt as percentage of total capitalization
- Rate of return on net fixed assets in operation
- Accounts receivable outstanding on a daily basis (number of days, etc.)
- Inventory outstanding on a daily basis
- Net tangible assets as percentage of long-term debt.

4.3.4.8. Preparing Financial Summaries

4.3.4.8.1. The use of a financial summary is an acceptable alternative to the main statements – balance sheet, income statement and cash flow statement. It must however, display the vital elements of each of these summary statements.

4.3.4.8.2. The normal size and content of the traditional income and cash flow statement and the balance sheet would not permit the production of a combined detailed statement for all main financial statements, and therefore the financial summary statement has been developed as an alternative.

¹³ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

4.3.4.9. Preparing Financial Tables using Spreadsheet Models

4.3.4.9.1. The Knowledge Management section of the web-based Guidelines provides spreadsheet models that can be used to prepare financial tables. The models include summary and detailed tables, including:

- Balance Sheets
- Income Statements
- Cash Flow Statements
- Financing Plans, and
- Financial Summaries.

4.3.4.9.2. Using these tables requires a working knowledge of financial accounting and financial analysis. The generic or model tables may be modified by users by changing the line item titles and the column titles to reflect the nature and form of the financial statements of the EA with which they are working. However, care should be taken to respect accounting conventions, particularly the use of subtotals and grand totals in each table to ensure that the financial data of line items that should be incorporated therein is appropriate. Each detailed and summary financial statement can be accessed in the model.

4.3.4.9.3. When a user is satisfied with the contents of a statement or statements, these should be saved to the user's own hard disk or floppy disk. When the Page is closed, the tables (templates) revert to their original state.

4.3.4.10. Preparing Financing Plans

4.3.4.10.1. The Cost Estimates Table provides as its bottom line, the total financing required for a project. It is essential that the means of financing this total expenditure is specifically defined in the RRP. The illustration and discussion of the financing plan for a project to be implemented by a revenue-earning enterprise usually consists of a summary – all in current terms of: (i) the project financing requirements and the external sources of finance from the cash flow statement; (ii) other capital and incremental working capital expenditures occurring during the project construction period; (iii) incremental and initial operating costs to be incurred during the implementation period, to be financed out of either project capital funding, or from local budgetary provisions; (iv) net income from any ongoing operations; and (v) debt service.

4.3.4.10.2. In a non-revenue-earning project, where there are rarely any internally generated sources of funds, project financing is usually not related to the future financial

performance of the entity. In such cases, the illustration and discussion of the financing plan would be confined to the project only and set out with the discussion on project costs.

4.3.4.10.3. The text of an RRP requires a discussion of a financing plan. In the case of a non-revenue-earning project, this is normally an extension of the discussion of the Project Cost Estimates. In the case of a revenue-earning project to be implemented by an EA, a summary-financing plan may be included after the Project Cost Estimates table. A detailed discussion on the financing plan (with a table showing a detailed financing plan, where necessary) should be included as part of the Project Chapter in the RRP. The following items should be covered, with detailed explanations, where necessary, in an Appendix to the RRP:

- Any cofinancing arrangements;
- Availability of internal funds, referenced as necessary to the cash flow statement;
- The self-financing ratio, particularly when this is to be incorporated in a financial performance covenant;
- Equity contributions;
- Terms of loans, including interest rates (or on lending rates, where applicable), grace periods, repayment periods, incidence of foreign exchange risk, guarantee fees and financial charges during development; and
- The dependability of a financing plan in terms of firm commitments that have been received, the progress of negotiations where loans or equity contributions have not been finalized, the availability of additional sources of funds in the event of cost overruns or lower than expected generation of internal funds, and a sensitivity analysis relating to the latter items, and any critical items listed above.

4.3.4.10.4. Funds from all principal sources should be identified as line items in the financing plan. Funds sources should be set out in terms of foreign and local currencies, using the US dollar as the foreign currency, and grouped in the table under local and foreign sources, including ADB loans, ADF, and TA; funds from other foreign lenders and donors; local loans, local equity including grants and subsidies from government, and internally generated funds. In cases where the EA is conducting an ongoing operation, as in the case of a public sector enterprise, it may, or may not, be generating sufficient funds from ongoing operations to support these activities. It is, therefore, advisable to include in the financing plan either the net funding through the period of the financing plan that the agency will generate, or the additional funding needs, which it will require, to operate and maintain its existing and new facilities. The sources of additional funding should be identified, for example, subsidies from government.

4.3.4.10.5. The financing plan should contain explicit references to contributions to be made by the agency during implementation, with specific reference to the acceptability

to ADB of a policy of deficit funding by government, particularly any policy that contributes to the capital investment of the EA.

4.3.5. Determining Fiscal Period Coverage

4.3.5.1. Introduction

4.3.5.1.1. Forecasting financial performance is frequently a hazardous task for the financial analyst. The records of past performances may not always be available, nor reliable, and a current less-than-satisfactory performance may be one of the reasons for proposing the project. Political, inadequate human resources, and natural disaster problems, among others, can influence future performance.

4.3.5.1.2. Despite these hazards, the financial analyst is required to develop financial information relating to a project and, where appropriate, the EA for a period of time that will allow ADB's management and the borrower to form judgments, at the least, as to past and current capabilities, and the most desirable, minimum financial performance that must be achieved to allow the project to be viable. It will not help the borrower or ADB for a financial analyst to forecast financial success in order to bring a project to the ADB Board, when all the sensible indications are that such success is unlikely. The latter has too often been the cause of unsuccessful projects.

4.3.5.2. Fiscal Period Coverage: Revenue-Earning Projects

4.3.5.2.1. For revenue-earning projects and their EAs, financial analysis needs to be based on a reasonable period of confirmed past financial status and operating performance of the EA. The current financial status and performance will be a useful guide to the capability and capacity of the executing agency to deliver the project.

4.3.5.2.2. With the information gained from the current and past performances, forecasts should be prepared of the financial status and performance likely to be achieved during implementation, and for a meaningful early period of operation following commissioning of the project. This applies particularly in cases where the EA will implement and operate the project as part of its ongoing operations, such as an existing electric power generating utility or a water supply and sewerage utility.

4.3.5.2.3. There can be no definitive periods of performance measurement, and the chosen years for each project and EA must be selected on the basis of the financial analyst's judgment of the period(s) that are likely to be the most informative for an accurate and reliable justification for the project and use of the particular EA.

4.3.5.2.4. As a general rule, it is unlikely that a period of less than two years of actual confirmed (audited) performance immediately prior to implementation, together with the implementation period and not less than three years of full operation following final commissioning would provide a satisfactory, reliable sample.

4.3.5.2.5. Some projects include components that have protracted implementation periods, for example, dams and forestry. For some the implementation period often can only be defined by the success of the project, for example, oil and gas wells exploration. Other components are often commissioned within one or two years of the commencement of implementation. Usually it is necessary to provide a financial picture of the completed project, including at least three years of full operation, and therefore, in such a case, the period of detailed analysis may cover 12-15 years or more (two years past, two years on existing operations, say six years for implementation and three years after project completion).

4.3.5.2.6. The word “detailed” has been emphasized here because, by comparison, for purposes of the Financial Internal Rate of Return (FIRR) the financial inflows and outflows for the full period of the life of the investment must be determined, but for FIRR purposes, the analytical requirements are not so complex.

4.3.5.3. *Fiscal Period Coverage: Non-Revenue-Earning Projects*

4.3.5.3.1. Normally for non-revenue-earning projects, the financial analysis should address only the financial requirements of the project itself, in the form of the Financing Plan, and the operating costs for up to five years following completion.

4.3.5.3.2. Unless the EA is also to be the subject of some form of financial performance reform as part of the project, there is no requirement to provide past performance data, unless this is material to support project justification.

4.3.5.3.3. Similarly future performance should normally focus on project execution and include only those costs of the EA for which financing must be assured to ensure the successful implementation of the project.

4.3.6. Forecasting and Financial Projections

4.3.6.1. *Introduction and Overview*

4.3.6.1.1. Forecasts, in the form of annual financial projections over the period of implementation, and for the period necessary to achieve a steady state, should be made

in nominal (current) prices (and tables should clearly so indicate) using the year of appraisal as the base year of projection. For an existing EA that operates facilities similar in nature to the proposed project, the financial projections should include actual performance for two or three years prior to project start-up. However, this may also require the forecasting of performance for the year of appraisal and loan negotiations/signing.

4.3.6.1.2. The objective of the actual performance and forecasts in the previous paragraph is to provide comparative performances, including establishing any trends and patterns, with the forecasts for the proposed project.

4.3.6.1.3. The preparation of financial projections should be an integral part of the PPTA consultants' TOR. The TORs for project implementation consultants will include, as part of project supervision, the monitoring of financial management and internal control procedures of the applicable project or EA.

4.3.6.1.4. Forecasts normally should be made in the local currency. An exception should be made when the local currency is unstable, for example, due to high and erratic levels of inflation, projections may be made using a stable currency, typically the US dollar.

4.3.6.1.5. The use of current prices is particularly important for the analysis of the Financing Plan which, to be complete, must relate to all project costs, including physical and price contingencies and, where appropriate, financing costs during development (FDCC), and for appraising debt service coverage and the effect of debt limitation covenants (which govern contractual obligations which are fixed in nominal current terms).

4.3.6.1.6. Forecasts in current terms are usually based on the same price assumptions as in the project cost estimates, at least through the construction period, as long as such assumptions are relevant for the labor, goods and services concerned. Appropriate price assumptions should be made for items which are not involved in the project cost estimate or which need to be priced on differing bases.

4.3.6.1.7. Forecasts are normally made for the period covering the duration of project construction up to at least the end of the third year of normal capacity (steady state) operations. When debt service coverage is based on a multi-year moving average, the projection should cover the final year of the moving average. The objective should be to provide adequate data on the profitability and debt servicing ability of the enterprise in relation to the investments to be undertaken under the project.

4.3.6.1.8. Forecasts should normally be made until a "steady state" has been reached, reflecting normal utilization of the project facilities. If a substantial financial change is

forecast within the life of the loan that would seriously affect the “steady state”, the text should specifically discuss the impact of such a change on the financial condition of the EA. If possible, the projections should be extended to cover such an event.

4.3.6.1.9. In cases of projects which take many years to reach normal capacity operating rates (e.g., 15-20 years for forestry projects), it is acceptable to limit the time horizon of the forecasts for the enterprise as a whole to between two and five years beyond the completion of project construction, even though normal operating levels may not have been reached.

4.3.6.1.10. Since it is necessary to demonstrate the impact of grace periods on loans, the time frame should include the first year or years of full debt servicing whenever feasible for treatment of FIRR forecasting.

4.3.6.1.11.. As stated above, where debt service coverage is based on a moving average calculation, the time frame should be sufficient to cover the last year of the moving average for the final year shown in the projections.

4.3.6.1.12.. In addition to this overview, this section reviews the following topics in relation to forecasting and financial projections: (i) using real prices; (ii) using constant prices; (iii) using a stable foreign currency; and (iv) presenting data.

4.3.6.2. Using Real Prices

4.3.6.2.1. Where the analysis is made in real terms, its use must be fully justified and the impact of current prices on the financing plan and other elements listed in the preceding paragraph fully explained in the text and subtables.

4.3.6.2.2. Relative price changes resulting from the differential effects of changing prices and inflation on particular expenditure items and on the revenue stream are apt to be overlooked when real terms are used. This can lead to distortions in the analysis of a financing plan and in cash flow statements.

4.3.6.2.3. By contrast, forecasts in current terms require the analyst to make specific judgments about these effects. Therefore forecasts in current price terms are preferred. Such forecasts should be made on the basis of alternative scenarios to illustrate a range of possible futures and uncertainties, and the forces that are likely to shape them. The use of sensitivity analysis on key variables is recommended.

4.3.6.3. Using Constant Prices

4.3.6.3.1. Where an EA operates within an established national system for adjusting costs and/or revenues for inflation, or in countries where price and foreign exchange rate movements are highly erratic, constant price forecasts may be used, providing the impact of the conversion to current prices, particularly on cash flows, is demonstrated.

4.3.6.4. Using a Stable Foreign Currency

4.3.6.4.1. An alternative method is to prepare tables in current price terms using a more stable currency with which the country has a consistent money-market/foreign exchange relationship, e.g., with the US dollar. Judgments on, and justification for use of current and constant prices and the foreign exchange rates used should be stated early in this section of the RRP.

4.3.6.5. Presenting Data

4.3.6.5.1. Projected balance sheets, income statements and cash flow statements of the project entity should be shown in summary and detailed tables, so as to permit comparisons between past and forecast data and to allow for ready identification of trends. The data should be consistent with demand and disbursement forecasts elsewhere in the report. Because the presentation and interpretation of figures in periods of changing prices and inflation is both difficult and risky, staff should assist readers whenever possible by highlighting underlying trends in data, particularly where these may be obscured by substantial rates of inflation.

4.3.6.5.2. For example, the cost of wages paid by an EA over three years may have risen by 150 percent, apparently matching commodity or other price rises of 140-160 percent. In fact, however, government, or employers, may have restricted the growth of wage rates (to, say, only 25 percent) during the period, with rising manpower numbers accounting for the rest of the 150 percent increase. The long run effect may be that a wages “explosion” is due in the project period, and this should be reflected in forecasts.

4.3.6.5.3. This kind of elucidation of data is central to good analysis. In cases where changes exist in significant elements of cost (e.g., labor, fuel) or revenues, the analysis may be given in both current (nominal) terms and real (constant) terms together with physical amounts (e.g., numbers of employees; tonnes of oil consumed) and the implicit assumptions for future forecasts should be explicitly stated.

4.3.7. Forecasting Assumptions

4.3.7.1. Financial forecasting requires analysts to make assumptions, even though as many factors as possible in an analysis should be based on researched and actual empirical performance data.

4.3.7.2. A new project will require assumptions to be made by its designers and by the analyst regarding input costs, quality and quantities for both investment purposes and for operations and maintenance. Therefore it is essential that the analyst should list all assumptions, and the base date of the data, used in compiling the analysis in an Appendix to the RRP, as well as in the Project File.

4.3.7.3. The basis for assumptions should also be indicated, and in cases where an assumption is critical, and possibly contentious in nature, the grounds or basis for its adoption must be stated in the RRP text. An efficient management of an EA should be continuously monitoring costs and prices. Therefore, to be assured that this takes place, the financial analyst should request the EA to provide an annual review, as a contribution to project supervision, of the validity of key (critical) assumptions used (e.g., inflation rate, forecast costs of principal imports-like petroleum products, cement).

4.3.7.4. The listed assumptions in an RRP appendix and Project File should be used as a key supervision tool, by requiring the EA, as part of the financial reporting requirements to provide annual updates of specific (critical) assumptions requested by the financial analyst. By this means the financial analyst can maintain a continuous review of the factors on which the financial projections were based, and obtain early warning signals of potential deviations from the forecasts.

4.3.7.5. In the event that the borrower or EA is unable to provide the necessary data for updating, the analyst is responsible during supervision for obtaining the requisite data and preparing an annual revision to the Assumptions Appendix of the RRP.

4.4. Measuring Performance

4.4.1. Introduction to Measuring Performance

4.4.1.1. Revenue-earning projects operate in the public and private sectors of member countries' economies. The advice in this subsection is broadly applicable to institutions in both sectors. However, there are good reasons for applying performance measurement to the operations of a non-revenue earning project particularly to measure the efficiency of its use of a project's resources, including human resources.

4.4.1.2. ADB encourages the application of financial performance measurement techniques to revenue-earning EAs that implement and operate projects financed using ADB loans, and which typically apply these factors in the designs of their primary cost recovery mechanisms. More specifically, they apply to all revenue-earning enterprises for which financial performance necessary to achieve the project objectives agreed between the borrower and ADB needs to be covenanted in legal agreements.

4.4.1.3. However, because each sector contains subsectors which may not be mutually compatible, either in their fiscal and social objectives, or in detailed aspects of their accounting treatment and financial reporting, sector-specific guidance may be provided in supporting guidelines at a later date by ADB. Nevertheless, this subsection does provide examples from different sectors to explain its concepts, and these may be used by ADB staff as guidance for financial performance measurement techniques in these sectors.

4.4.2. Objectives of Measuring Performance

4.4.2.1. ADB's objectives in using performance measurement techniques as a key element in the management of projects is to: (i) provide the managements of the borrower, the EA and ADB with an effective means of measuring the progress of a project, of its many components, and the adequacy and timeliness of provision and use of funds; (ii) regularly assess the potential for achieving the technical, financial, and economic objectives of the project; (iii) determine the form and nature of corrective actions necessary to achieve targets measured by performance indicators, and (iv) assist in defining new or modified performance measures that may be more effective, and to replace those that are ineffective.

4.4.2.2. The Office of General Counsel takes the key financial performance objectives agreed with a borrower and an EA at appraisal and loan negotiations and translates these into financial covenants in loan agreements. Loan covenants, with the relevant performance indicators incorporated in the text, are established among other things, as a means of assuring the regular (normally annual) measuring of, among other things the: (i) the enhancement (or otherwise) of specified sector(s) of the national economy concerned; (ii) the impact of the project on the community concerned; (iii) the impact of the project on key concerns, such as poverty relief, environmental protection; (iv) the extent to which the investment (including ADB's loan proceeds) is utilized effectively; (v) the extent to which the ADB's loan, other lenders or donors funds, and the government's counterpart contribution each are effectively used for the purposes intended, and (vi) the efficiency and effectiveness of the management of the EA in managing the project.

4.4.2.3. In addition to covenanted indicators, ADB will seek to agree with the EA concerned that other non-covenanted performance indicators will be subject to periodic reports to ADB.

4.4.3. Performance Indicators

4.4.3.1. The private sector in member countries, in particular, has developed various performance measuring devices to enable managements and stockholders to understand and/or be assured as to the performance of enterprises. The use of a number of these techniques is feasible in public sector enterprises, and, of course, in private sector enterprises which are financed by ADB.

4.4.3.2. Performance measurement ratios or indicators are an effective and concise means of transmitting financial information, particularly when used to compare time-bound performances. An inherent danger in the use of performance ratios and indicators lies in the brevity of the descriptions used, and sometimes of the information on which they are based.

4.4.3.3. These indicators are intended to convey information quickly and succinctly, but users may be misinformed unless they are provided with a clear understanding of the bases of the data used to compile the indicators and of any changes that occur to cause sudden fluctuations. As examples, the term “debt” can mean all debt both long and short term, or only long-term debt; or it can mean the historical value of foreign debt on its acquisition at local currency conversion rates at the date of acquisition; or it can mean the current value expressed in current US dollars etc.

4.4.3.4. A debt service coverage indicator may change significantly if the structure of interest rates falls sharply by reason of substitution of low-interest-bearing debt for high-interest-bearing debt.

4.4.3.5. Ratios and indicators should be displayed on a financial report or its tables in such a manner that readers can quickly appreciate the significance of the information and are left in no doubt as to the basis of the information used to generate a ratio or indicator. This means that financial analysts must include in their documents, particularly the financial projections, and in the Project File, the assumptions used in compiling financial ratios and indicators.

4.4.3.6. The guidance on specific indicators provided in this section relates to specific indicators. It is provided to assist staff in determining the most appropriate ratios and indicators to use when measuring performance, including the most suitable methods for their compilation and incorporation in financial covenants.

4.4.4. Using Benchmarking Indicators

4.4.4.1. The use of benchmarks (or benchmarking) is a widespread practice of establishing a clearly defined performance measurement or indicator. They are used in most public and private sector organizations, by all forms of industry and commerce, and by military organizations. Dictionary definitions of a benchmark include a standard, a criterion, a standard of comparison, an indicator, a measuring stick, a yardstick, a barometer, a frame of reference, a gauge or index, (e.g., a Plimsoll line on a sea-going vessel). Often a benchmark is intended to denote optimum performance requirements, sometimes it is intended to set a minimum standard below which performance must not be allowed to fall.

4.4.4.2. Revenue-earning enterprises in the public and private sectors have benchmarks, some are set for them by governing, regulatory, and advisory bodies; some they set themselves to establish local parameters of performance.

4.4.4.3. While regulators of utilities for some countries have tried to set national benchmarks, these have rarely proved to be practical and in countries such as the US (that has State regulators), UK and Australia, the regulators for telecommunications, water, electricity and gas have chosen to determine benchmarks for individual companies or regional groupings of companies. This is because each organization (and project) is unique.

4.4.4.4. Benchmarks for non-revenue-earning projects are more difficult to establish. Non-financial mechanisms need to be used to indicate performance. Benchmarks/indicators such as “Mortality per million of population under age 45”; of “Percentage reduction in traffic accidents in urban areas”, are typical.

4.4.4.5. The multilateral development banks have tended to avoid the use of the word “benchmark” in favor of “indicator”. A “benchmark” is regarded as having primarily an engineering connotation – a standard of performance that must be achieved or must succeed, whereas an “indicator” for use by these banks has come to be regarded as a form of measurement to determine progress towards project objectives.

4.4.4.6. The characteristics, or elements/ingredients of a performance indicator can be agreed between a borrower/EA and ADB at project appraisal and the resulting formula can generate a benchmark or indicator that the project is designed to achieve. Throughout implementation, and often during the operational period of a project, the performance of each defined characteristic or element is applied to the formula to provide the most recent measure of performance. The result is to be compared with the benchmark or performance indicator agreed between the parties at appraisal.

4.4.4.7. For the financial analyst this means that – in addition to the traditional financial performance indicators – supplementary benchmarks or indicators may need to be agreed with the borrower.

4.4.4.8. It is good practice to select no more than about 12 benchmarks or indicators. While 12 is not an absolute rule, the use of more can be confusing, and less may not provide the necessary wide coverage. About half this number should focus on implementation, and the remainder on outcomes and impact for use in project supervision and evaluation.

4.4.4.9. The Knowledge Management section of the web-based Guidelines provides a copy of the World Bank's Handbook on Performance Monitoring Indicators. This includes a detailed description of approaches to the compilation of performance indicators and about 15 pages of indicators for nine sectors.

4.4.5. Selecting Indicators and Covenants

4.4.5.1. Introduction

4.4.5.1.1. This section provides advice and guidance on the selection of performance indicators and financial covenants that are likely to advance and secure efficient and effective financial viability and financial integrity for the wide range of EAs that seek funding of revenue-earning projects from ADB. This section does not apply to Financial Institutions (FIs). Specific advice and guidance on FIs is provided in section 6.4.

4.4.5.1.2. Recommending a specific performance indicator and a related financial covenant for a project in each sector or subsector is not feasible due to the prevailing wide range of sectors, subsectors and country conditions. This section is intended to set out key issues that may be encountered and possible solutions that the financial analyst should consider.

4.4.5.1.3. The advantage of using financial covenants is that ADB expects the borrower and EA to make every effort to comply with the terms thereof to assure the financial viability and integrity of the project and the EA.

4.4.5.1.4. Financial analysts should encourage EAs to recognize that it is very useful for their management and the borrower (and ADB) to provide non-covenanted performance indicators in periodic and annual financial reports, and their regular review by management and ADB can often provide critical information on an entity's operational progress and financial performance.

4.4.5.1.5. Performance is represented by indicators that are usually characterized by ratios expressed as relationships (e.g., percentages; relating absolute numbers) between two items of information (e.g., debt- equity).

4.4.5.1.6. The multilateral development banks (MDBs), including ADB, use ranges of indicators drawn from the three categories below, with associated financial covenants, namely: (i) operating indicators; (ii) capital adequacy indicators; and (iii) liquidity indicators. ADB uses indicators selected from these ranges to measure EA performance.

4.4.5.1.7. The reference to the MDBs in the discussion above is intentional because it is important for financial analysts to recognize that they may be operating with an EA where another MDB has either already established performance and covenanted criteria, or may be seeking to do so. In such cases, the financial analyst needs to understand the rationale for the MDB's selections, and if possible, in the interests of the borrower and ADB, to agree with their use. In the event of failure to agree with the MDB, an issue should be notified to the Project Officer, borrower, the EA, and the MRM.

4.4.5.1.8. International commerce and industry, in addition to also using many of the above indicators, also select from a wide variety of other indicators in order to measure financial, production, processes, and service performance.

4.4.5.2. Questions before Selecting Performance Indicators and Covenants

4.4.5.2.1. The following checklist should be consulted when selecting performance indicators and covenants:

- What is the basis for the available financial management and financial analysis data?
- Is it transparent, accurate, reliable, and the subject of an auditor's report and opinion, or prepared by a consultant with a reliable financial management track record?
- What are the current, or in the case of a "greenfield project", the most likely, financial performance weaknesses that should be given priority for correction (or prevention)?
- Which indicators and covenants could be the most appropriate to achieve correction (or prevention)?
- For ongoing operations of an EA, what are the deficiencies in cash management performance for at least the past two years (using audited annual financial statements)?
- How should they be corrected?
- Which indicators and covenants could be the most appropriate to achieve correction?

- What changes are necessary to ensure an adequate capital structure (debt/equity including reserves) for the EA?
- How can they be affected?
- What should be the time scale to achieve correction?
- Which indicators and covenants could be the most appropriate to achieve correction?
- Do the levels of revenue generation and collection need upgrading, prioritize the steps to achieve: (i) short-term improvements; and (ii) long-term improvements?
- Which performance indicators should be included in periodic performance reports (i.e., not subject to covenants)?
- Will ADB's sector operational experts or consultants confirm that each level of operating costs are, or will be, operating at optimum efficiency and effectiveness?
- If not, what performance levels are they proposing, and which financial performance indicators should be used to support their proposed operational performance upgrading?
- Does (or will) the EA have a financial management system from the date of project start-up capable of accurately reporting the financial performance data required in a timely manner?
- Does the EA have a track record of submitting interim financial reports and audited annual financial statements?
- Should this track record be improved? If so, how?
- Does (or will) the EA have a management system capable of developing and efficiently responding to the results of each proposed financial indicator and financial covenant?
- Does the EA have qualified and experienced personnel who can interpret and monitor performance against the indicators or covenants?

4.4.5.3. Objectives of the Use of Financial Indicators and Covenants

4.4.5.3.1. The primary objective is to achieve and or sustain the financial viability and integrity of public and private sector projects and EAs that are financed by ADB. Borrowers and ADB that jointly agree on the achievement of this objective at loan negotiations recognize that its accomplishment may extend at least over the period of project implementation, commissioning and achievement of a steady state of operations. This period will probably cover a minimum of five years.

4.4.5.3.2. Meaningful performance and financial forecasting over extended periods of time is not possible. Projected financial performance information can only be indicative, rather than realistic. There will be inherent risks that not only the designed project content and performance may change, but that the prevailing financial and economic conditions in which the project is to be constructed and operate will change. Recognition of the

inherent risk means that ADB's and a borrower's agreed definition of the type of financial indicators and financial covenants with their specific measurement criteria at loan negotiations must change as physical, financial and economic conditions change in the future. The following references to PAI 5.03 are included to draw attention to ADB's facilities to address the modification of a performance covenant under changing circumstances.

4.4.5.3.3. PAI 5.03, Part B (Review of Covenants) recommends that ADB staff should report on the continued validity of special loan covenants (such as those used to prescribe financial performance) and, as standard practice, attach to the BTOR an appendix detailing the status of compliance with all covenants. In addition, PAI 5.03 (Part C: Follow-up Actions) addresses a borrower's failure to comply with loan covenants and recommends, according to circumstances, that staff should consider whether the covenant should be amended; whether an extension be granted; whether alternative measure should be introduced; or whether the covenant should be waived or deleted. It should be noted that a borrower may continue to comply, but the performance required may have changed to become more severe or constraining (for example, increased efficiency of inputs and/or outputs), thus reducing the validity of the covenant concerned. In such cases, ADB staff should also use the provisions of PAI 5.03 to introduce more meaningful performance requirements into a covenant.

4.4.5.3.4. The financial covenants should also enable reviewers to specify an agreed date or dates for subsequent reviews. The covenants should provide for earlier review in the event that the borrower/EA is not in compliance with the covenant at any time.

4.4.5.4. *Financial Viability and Integrity of Projects and EAs*

4.4.5.4.1. The achievement of this goal requires that the EA meets targets of physical, economic, and financial performance as specified in the RRP and agreed with ADB at loan negotiations. Specific definitions of financial viability and integrity should be defined in the RRP. These may be extensive, but as a minimum should include one indicator selected from each of the following ranges: (i) revenue indicators; (ii) capital structure indicators; and (iii) liquidity indicators.

4.4.5.4.2. The selected indicators should be the subject of financial covenants where agreement is essential to achieve the objectives and financial viability of the project and/or the EA. Non-covenanted indicators should be agreed with the EA and included in the reporting requirements provided by ADB to the EA at project start-up. Where appropriate, additional indicators should be included, either within covenants, or in ADB's financial reporting requirements.

4.4.5.5. Cash Requirements

4.4.5.5.1. Most operating and capital adequacy indicators are formulated on the basis of accrual information. This means that they may not adequately disclose an EA's liquidity (actual cash) position. An exception is the cash-based Self Financing Ratio Covenant that provides a definition of cash availability for performance.

4.4.5.5.2. ADB's experience shows that lack of, or insufficient, cash are a major cause of nonperformance by EAs. Therefore, a liquidity indicator, preferably the Quick ratio or "acid test", should be provided for each project, but note that this is a "snapshot" view at one point in time (e.g., balance sheet date). This "snapshot" defect can be substantially overcome by calling for a periodic report to provide a table of month-end quick ratio results for the preceding 12 months (or such other appropriate period).

4.4.5.6. Managing Operating Costs

4.4.5.6.1. ADB recommends to borrowers that their public and private sector revenue-earning enterprises should be required to meet a "reasonable portion" of their investment requirements from internally generated funds, after providing for costs of operation and maintenance, taxes, incremental working capital, debt service and any dividend requirements. The generation of this "reasonable proportion" is heavily dependant on the relationship between operating costs and operating revenues. The smaller the share of revenues consumed by operating expenses, the larger the amount available for meeting taxes, incremental working capital, debt service and any dividend requirements with the residual to provide the "reasonable portion" of investment requirements.

4.4.5.6.2. It is critical that there should be an effective measure of performance for the level of operating revenues consumed by operating costs. This measure is the Operating Ratio. An alternative indicator which should only be used to bring stability to a financially ill-managed EA is the breakeven ratio and covenant.

4.4.5.6.3. Each of the projects listed in section 3.2.1 should be asked to provide an operating ratio in periodic and annual reports, and where necessary, in parallel with an operating ratio covenant.

4.4.5.6.4. In addition to seeking an overall reduction in costs, it may be necessary to select one or more categories of costs to seek specific reductions. Levels of salaries and wages frequently require specific indicators. There can be other costs, such as fuel, transportation, management and administration, etc., that should be the focus of the EA's and ADB's attention by use of indicators.

4.4.5.6.5. Where an operating ratio indicator is to be installed using a financial covenant and it is proposed that the levels of operating costs should decline in real terms over a defined period, the covenant should define the appropriate performance indicator(s) and the selected years of covenanted performance.

4.4.5.7. *Managing Operating Revenues*

4.4.5.7.1. Where there is a need to assist an EA to improve its revenue generation, either in parallel with operating cost improvements, or with respect to improving operating revenues only, the Operating Ratio should also be used with appropriately designed performance indicators and the respective years of recommended performance.

4.4.5.7.2. Indicators should be used to show the performance of each revenue category (e.g. domestic, commercial, industrial, etc. or passenger traffic, freight traffic, etc.). Typical indicators are “Percentage Growth in Revenues” and “Gross Profit Margin” together with billing performances (number of consumers billed by billing periods, or annually).

4.4.5.7.3. Where an operating ratio indicator is to be installed using a financial covenant and it is proposed that the levels of operating revenues should increase in real terms over a defined period, the covenant should define the appropriate performance indicator(s) and the respective years of covenanted performance.

4.4.5.8. *ADB Policy on Asset Revaluation*

4.4.5.8.1. ADB and the other MDBs have, in the past, accepted the use of both historical cost accounting, and modified historical cost accounting (where assets are revalued on a regular basis). Both these accounting methods are consistent with International Accounting Standards. ADB and the other MDBs will seek to agree a consistent policy position on the revaluation of assets, or otherwise, as part of the harmonization exercise.

4.4.5.8.2. In the meantime, and in keeping with general ADB practice, asset revaluations should be undertaken where that is the standard practice of the particular country. However, if asset revaluations are undertaken: (i) the whole class of assets should be revalued at the same time (e.g., land); (ii) a robust methodology should be applied that accords with generally acceptable practices (e.g., as applied by the International Valuers’ Association) – the use of price indices and other less robust revaluation methods should not be used; and (iii) the assets must be revalued on a regular basis (e.g., every three years).

4.4.5.8.3. With regards to the calculation of Rate of Return, this should be based upon the value of assets at depreciated historical cost, unless the economy is hyperinflationary (see IAS 29 for a discussion).

4.4.5.9. *Managing Funds for Investment and / or Reserves*

4.4.5.9.1. The Rate of Return on Net Fixed Assets is appropriate under low inflationary conditions. When inflation is forecast to exceed 7 percent per annum over the five years from the date of loan effectiveness, the practice has been to require a periodic revaluation of assets.

4.4.5.9.2. Where a self-financing ratio covenant is proposed, ADB's current version calls for cash generation (rather than funds generation). This change was made to reflect the need for an EA to be able to meet its commitments in cash with the objective of encouraging contractors and suppliers to provide timely support for the project. However, this modification will only be successful if the EA effectively meets the terms of the covenant, by generating cash to support self-financing.

4.4.5.9.3. Each of the projects listed in section 3.2.1 should be asked to provide either (i) a rate of return on unvalued net fixed assets; or (ii) self-financing ratio indicator, in periodic and annual reports. One, or both of these indicators may be included as financial covenants.

4.4.5.9.4. The objective of using both indicators in covenants would be to try to ensure that the EA generates sufficient cash to at least meet the self-financing ratio. This latter ratio should be established at a level that is estimated to correspond to the funds required to support the rate of return indicator.

4.4.5.10. *Assuring Capital Adequacy*

4.4.5.10.1. All capital has a cost, even in circumstances where a government may waive interest or dividends on equity (grants), or where a donor may provide a grant. This latter case represents the cost to another worthy cause that didn't benefit from the grant proceeds and had to forego the benefit, and possibly find an alternative at a cost.

4.4.5.10.2. Capital primarily comprises equity, loans, and grants. Typically the highest cost is equity, due to the risk of a failing investment. Loans are normally at a lower cost than equity although short-term funds in high risk/inflationary conditions may exceed long-term equity cost (but under such conditions, the latter may not be available).

4.4.5.10.3. An EA that seeks capital should minimize its capital costs by seeking the lowest cost selections between loans and equity; the latter can be either obtained from investors or from retained earnings (which are frequently measured by the return on investments).

4.4.5.10.4. The effectiveness of such a policy is typically judged by the debt-equity ratio. While it may be argued that a revenue-earning EA that is controlled and funded by government should not be concerned about the level of its debt, recognize that such loans usually are part of a government's borrowing ceiling, and , as such, may deprive other government agencies of scarce funds.

4.4.5.10.5. When redistribution of resources is a key element of ADB's policy for the country concerned, a revenue-earning entity should be encouraged to generate revenues to make surpluses available for redistribution by government, providing the EA is able to retain sufficient funds to assure its own financial viability and integrity.

4.4.5.10.6. A debt-equity ratio will vary according to an EA's financial policies and perhaps the government's also, where the entity is in the public sector. The long-term aim should be to sustain a level of cost of capital that virtually balances between the two sources of funds. A 60:40 debt-equity ratio should imply that the cost of equity is about 1.5 times that of loan interest rates – or (say) 12 percent for equity to 8 percent for loan interest per annum. If the equity proportion in the indicator should exceed the level of debt, this can mean that the EA should be seeking an improved return on its capital.

4.4.5.10.7. Delinquent payers with a poor capital structure, and poor earnings records will attract high loan rates. As an example, a public sector water utility with a high level of government equity and loans from MDBs and similar concessional lenders will have serious difficulty in breaking out of that pattern. Unless EAs can develop a record of timely settlements and earnings growth that will attract lower cost loans, availability of venture equity will be scarce, should it seek privatization.

4.4.5.10.8. ADB therefore encourages its borrowers to achieve satisfactory debt-equity ratios and debt-service coverage performance as a means of attracting other lenders to replace ADB as a lender of last resort.

4.4.5.10.9. In addition, ADB may wish to limit the debt that a borrower/EA may incur, sometimes to encourage the use of equity, usually through internal cash generation, but also to prevent an EA from borrowing for non-capital purposes, such as supporting declining operating revenues.

4.4.5.11. Deciding on Indicators

4.4.5.11.1. The financial analyst should:

- Identify all factors that could prevent, or limit the effectiveness of, financial sustainability of the project and of the EA's own performance. Using these factors, determine the most efficient financial and nonfinancial performance indicators that would reflect increases in exposure to financial failure.
- Recommend financial performance indicators that would give early warning of actual or approaching financial management failures by selecting at least one financial performance indicator from each of the revenue, capital adequacy and liquidity financial indicators referred to above, plus any necessary additional financial performance indicators.
- Establish recommended dates of performance achievement and review where the EA will be required to adjust financial performance during project implementation and operation.
- Recommend those financial performance loan covenants that should cause the borrower and the EA to take action to limit or remove the exposures.
- Insist that all forms of financial management weaknesses be either eliminated before that time, or that the financial commitments of the proposed project be scaled down to levels that the EA would be able to sustain (because an EA's financial management system must be sustainable from the date of start-up).
- Develop a rationale for the use of each indicator selected for inclusion in the RRP.

4.4.6. Operating Indicators and Covenants

4.4.6.1. Introduction

4.4.6.1.1. Before commencing a detailed review of the various measurement methodologies, it is appropriate to set out ADB's objectives in using such techniques. The private sector in member countries, in particular, has developed various performance measuring devices to enable managements and stockholders to understand and/or be assured as to the performance of enterprises. The use of a number of these techniques is feasible in public sector enterprises, and, of course, in private sector enterprises that are financed by ADB.

4.4.6.1.2. To assist an EA in achieving its financial objectives, as well as the government's economic objectives which may be supported by an ADB loan, ADB wishes to be reassured that the operational objectives of an EA and, where appropriate in the public sector, agreed upon with the borrower, will be met at least through the life of the project.

4.4.6.1.3. These objectives are translated into covenants by the General Counsel and are established, among other things, to enhance the national economy concerned and to ensure that the investment (including ADB's loan proceeds) are utilized effectively.

4.4.6.1.4. Performance measurement ratios or indicators are an effective and concise means of transmitting financial information, particularly when used to compare time-bound performances. An inherent danger in the use of performance ratios and indicators lies in the brevity of the descriptions used, and sometimes of the information on which they are based. As indicators they are intended to convey information quickly and succinctly, but users may be misinformed unless they are provided with a clear understanding of the bases of the data used to compile the indicators and of any changes that occur to cause violent fluctuations.

4.4.6.1.5. Typically ADB loan/project agreements provide the necessary definitions, but care should be taken when comparing indicators between ADB-financed projects and non-ADB-financed operations, where the definitions may not be readily available. As examples, (a) the term "debt" can mean all debt both long and short term; or only long-term debt; or it can mean the historical value of foreign debt on its acquisition at local currency conversion rates at the date of acquisition; or it can mean the current value expressed in current US dollars etc.; and (b) a rate of return on net fixed assets in operation indicator may change significantly if inflation becomes severe and there is no corresponding revaluation of assets.

4.4.6.1.6. Ratios and indicators should be displayed on a financial report or its tables in such a manner that readers can quickly appreciate the significance of the information and are left in no doubt as to the basis of the information used to generate a ratio or indicator. This means that financial analysts must include in their documents, particularly the financial projections, and in the Project File, the assumptions used in compiling financial ratios and indicators.

4.4.6.1.7. The guidance in this section is intended to assist staff in determining the most appropriate revenue performance ratios and indicators to use, and the most suitable methods for their compilation and incorporation in financial covenants.

4.4.6.2. Rate of Return (ROR)

4.4.6.2.1. Section 3.6.2.2 discusses the application of this indicator in relation to investment projects. The conventional concept of a rate of return is a measure of the efficiency of the use of operational assets, or alternatively, a measure of the return on invested capital compared to other opportunities to invest in the market place. This is particularly true at the margin (i.e., it is illogical to invest in assets if their yield is less than that obtainable for alternative uses of capital).

4.4.6.2.2. The cost of capital is also proxy for when a utility should, or should not, put its money in the money market instead of buying an asset. But the application and use of the rate of return concept has been broadened in its application to the measurement of performance of public sector enterprises.

4.4.6.2.3. The Rate of Return on Net Fixed Assets in Operation is a common financial performance indicator used in industry and commerce, and particularly by utility regulating agencies that seek to limit private sector profit maximization at the expense of unprotected consumers. Its application by multilateral development banks (MDBs) in their financial covenants has been the opposite of that adopted by regulatory agencies. The latter have always sought to keep rates and prices of utilities within fixed limits, whereas the MDBs have treated the indicator as a minimum (i.e., the borrower should either achieve or exceed the indicator specified in a covenant). This alternative use, particularly in cases where the target is set too low, may result in the achievement of less than the effect desired by MDBs (as a measure of the efficiency of the use of invested capital) or justified on economic grounds, by encouraging politicians and managements to believe that as long as they achieve the specific “target”, the financial health of an enterprise will be assured.

4.4.6.2.4. In practice the rigid adoption of the prescribed target under inflationary conditions, in particular, or in times of financial stringency, may result in an adverse impact on long-term performance by providing insufficient resources for investment and reserves, with resultant damage to the quality of the service and/or product. The rate of return for ADB purposes is the relationship between the net operating income and the net fixed assets in operation, and expressed as a percentage.

4.4.6.2.5. Expressed in other words, it is the net yield or return after tax achieved by the net assets in operation in an operating period. A rate of return indicates the return which should be achievable on invested productive capital of an enterprise in the country concerned; or the reasonable rate of return to the enterprise which it could obtain from average interest rates or returns for the similar amounts of capital invested in the market place (long-term borrowings and equity) which are usually higher than interest rates payable on long-term borrowings available to public sector enterprises and institutions. The definition of “reasonable” in these circumstances is a judgment call, and reference should be made to similar returns on investment elsewhere in the economy of the country concerned, or at the current interest rate structure, after making allowances for differences in the business risks and terms of comparable investments.

4.4.6.2.6. Net operating income after taxes is represented by operating income less operating expenses. Operating expenses include adequate maintenance and provision for depreciation, usually on a straight-line basis at a specified rate or rates; but interest

and other financial charges are not included as part of operating expenses (a detailed definition of all elements is included in the draft covenant). Capital invested in fixed assets normally is the average for the year of the net value of an enterprise's fixed assets (Refer to 4.4.5.8 for a discussion of ADB policy on asset revaluation). Invested capital may also include adequate working capital, particularly for enterprises that require a relatively high proportion of working capital to conduct operations.

4.4.6.3. The Self-Financing Ratio (SFR)

4.4.6.3.1. Section 3.6.2.3 discusses the application of this indicator in relation to investment projects. The self-financing indicator, sometimes referred to as contribution to expansion, or contribution to investment, or cash generation, measures the net internal cash generation generated by an enterprise which is available for investment (expansion) purposes, usually to contribute to its investment program, particularly the proposed project.

4.4.6.3.2. It is typically defined as a percentage of specified capital expenditures that are to be financed after meeting operating expenses, debt service, taxes, dividends, increases in working capital, and other significant cash outflows excluding capital expenditures. As such, a self-financing ratio indicator directly measures the adequacy of internal cash generation to finance consistently an agreed proportion of investment requirements. However, a self-financing ratio, as for all performance ratios, should be determined on the basis of discussions of financial policy with the enterprise, the sector and center/state economic and financial ministries/departments' officials.

4.4.6.3.3. It should be logical; it should not be a "traditional" number which has been used in the past, or is in the ongoing loan covenants, etc. It should be a carefully measured ratio which will directly support current and future policy objectives.

4.4.6.3.4. The percentage of internal cash generation to be specified is usually derived from the financing plan and financial projections for the period under consideration (which typically may be the project construction period plus three to five years beyond completion), after reflecting policy decisions (agreed by ADB) on equity financing versus debt financing, and debt servicing principles.

4.4.6.3.5. The principal method of determining this percentage is by comparing the net funds generated in a given year to the average capital expenditures for a representative period. This should consist of three years, including the year just past, the current year, and the next following year. The data for the current year and the next following year should be supported by a firm budget.

4.4.6.3.6. The often uncertain nature of future investment programs may make it necessary to provide for periodic reviews of the percentage(s) of internal cash generation. When a self-financing ratio indicator is used, the rate of return indicator for the enterprise should also be estimated and its adequacy should be judged on the basis of the considerations stated in that Section.

4.4.6.3.7. The financial analyst should encourage the policy-makers in an enterprise and the government concerned to address the issue of what should happen when investments decline, i.e., when the funds generated through the use of a self-financing ratio are greater than the yield specified in a loan agreement. For example, if a self-financing ratio of 20 percent generated about \$20 million equivalent annually for an enterprise, and the investment program declined to about \$40 million annually, or even to less than the yield of the ratio, what should the policy be vis-à-vis this “surplus” and the self financing ratio itself.

4.4.6.3.8. Two matters should be actively pursued. First, the enterprise should be encouraged to meet as much of its capital development requirements (asset financing) as possible, and therefore even if the ratio reached 100 percent, the benefit would accrue to the enterprise, its consumers and to the government, particularly if foreign loans were no longer needed. Second, either the government has undoubtedly provided equity in the past for the development of the enterprise (and therefore the sector concerned) and is entitled to receive payment for the use of that capital in the form of dividends – or even in the form of repayment of capital contributions to re-employ the resources in other less fortunate sectors, or enterprises within the same sector. Or, in cases where the self-financing ratio is a sector-specific policy, this repayment of capital, or the payment of dividends on equity of government, could commence once the balance of funds in excess of the yield of the specified self-financing ratio, even though the enterprise was still incurring debt, on the grounds that this “surplus” represented the funds available for distribution within the sector.

4.4.6.3.9. However, the self-financing ratio will continue to present the financial analyst with a paradox: (i) the higher the assessed risk, the higher the self-financing ratio required by prudent creditors; but (ii) weaker enterprises probably have higher risks and probably are unlikely to afford a high self-financing ratio - with the result that only limited investments are possible, thus contributing to (and not allaying) inherent weaknesses with the inevitable adverse impact on the community, the economy and government generally.

4.4.6.4. The Operating Ratio

4.4.6.4.1. Section 3.6.2.5 discusses the application of this indicator in relation to investment projects. The objective of an operating ratio is to measure operating efficiency. It should be used to address the efficient use of manpower, materials, transport, and other factors of production. It should not be used to measure cash flow requirements.

4.4.6.4.2. The operating ratio indicator expresses operating expenses, including adequate maintenance and depreciation, as a percentage of revenues. It is easily understood and calculated from income statement data. The lower the ratio, the better is the borrower's financial performance; a ratio up to 100 means that revenues are sufficient to meet operating expenses (a ratio of 80 means that operating expenses consume 80 percent of revenues).

4.4.6.4.3. It does not provide for financial obligations for debt repayment or contributions for expansion, except indirectly to the extent that revenues fund depreciation. It is difficult to design an operating ratio indicator to achieve the objectives of a return on investment indirectly. In the event that the operating ratio at project preparation is inadequate, or is already low (below 100), the financial analyst should discuss with the project engineer and the enterprise the efforts which should be made to improve the ratio without increasing revenues by increases in charges.

4.4.6.4.4. There may be a need for supplemental loan covenants that address physical performance, or for an action plan linked with the covenanted operating ratio, to improve efficiency in the enterprise (e.g., water and/or sanitation employees per 1,000 house connections).

4.4.6.5. Break-Even Ratio

4.4.6.5.1. Section 3.6.2.6 discusses the application of this indicator in relation to investment projects. The breakeven indicator, which is infrequently used, compares the total revenues of an enterprise to the operating expenses plus the amount by which debt service requirements exceed the provision for depreciation. The objective is to measure an enterprise's efforts to breakeven, without providing any surpluses for investment, dividends, etc.

4.4.6.5.2. It is typically used by transportation enterprises (buses, trams) which are frequently heavily subsidized, where the indicator can be used by these institutions to measure their efforts to obtain sufficient revenues, exclusive of subsidies, to match operating expenses and debt service.

4.4.6.5.3. This indicator, and a covenant which may be used to support its use, should not be introduced without a detailed justification at fact-finding, and in the appraisal. The justification should include a detailed breakeven analysis, displaying the effects of changes in volume on the breakeven point(s), and on profitability and cash flows.

4.4.6.5.4. The discussion should include a forecast of when a self-financing ratio should be introduced, and if debt service is not being met completely, or at all, the steps which the government and the enterprise propose to take to recover debt service from consumers through the charging system(s) of the enterprise.

4.4.7. Capital Structure Indicators

4.4.7.1. Introduction

4.4.7.1.1. Public sector and private enterprises need an appropriately balanced, adequate capital structure, even though for the former, the objective of return on capital may be tempered by socioeconomic policy considerations.

4.4.7.1.2. It would be possible to provide all the capital of a public sector enterprise as equity and thus avoid all financial risks. This is undesirable since this would forego the benefits of the financial discipline associated with the obligation to service debt. Limits on the liability of public sector enterprises to contract additional debt also prevent the use of borrowings to postpone cost reductions, (or increase of charges) to maintain earnings at an adequate level.

4.4.7.1.3. It is also an oversimplification to view the equity capital in a public sector enterprise as having no recognizable financial cost because the funds used have an opportunity cost regardless of where they are invested. Also the cost of capital is a legitimate cost that owners/consumers should pay, regardless of whether there is no debt in the structure of the enterprise. Moreover, in a public sector enterprise, earnings must be in excess of debt service obligations (and/or dividend payments on equity) to provide a safety margin, and to provide additional funds for investment. The previous paragraph is a typical commitment entered into by an enterprise to enable it to continue to incur debt, particularly to draw down the ADB's loan.

4.4.7.1.4. The enterprise can use these funds for its capital requirements or to pay dividends that the government can apply for other developmental or fiscal needs. Capital structure indicators serve to indicate an assurance (or otherwise) of the continued solvency and financial viability of revenue-earning enterprises by imposing prudent limits on their long-term borrowing. However, they are not designed as revenue-generating indicators and thus cannot be used as operating covenants.

4.4.7.2. Capital Structure as a Debt Limiter

4.4.7.2.1. An EA that does not incur debt after agreeing to use a capital structure indicator, or refrains from further borrowing after a period of compliance, even though the agreed performance criteria subsequently may not be complied with, is not in breach until it again commences to incur debt.

4.4.7.2.2. The limits of the indicator should be set so as to enable debt service obligations to be met under adverse as well as normal business conditions, taking into account business and financial risks.

4.4.7.3. Capital Structure and Risk Management

4.4.7.3.1. Business risk refers to the inherent uncertainties, or variability of expected returns, related to the nature and type of business activity of a particular enterprise. The financial risk is the additional risk inherent in the obligations associated with borrowings (interest and debt repayment) which must be met irrespective of the results of operations.

4.4.7.3.2. The foreign exchange risk is an extension of the financial risk when the obligations associated with borrowings (interest and debt repayment) that must be met irrespective of the results of operations are expressed in a currency other than the local currency.

4.4.7.3.3. The principal foreign exchange risk arises when the local currency declines in value against the foreign currencies in which the obligations must be paid, resulting in the cost (or value) of the obligation being increased by reason of the additional local currency required to purchase the requisite amount of foreign exchange to meet the obligation.

4.4.7.3.4. If the local currency increases in value against the foreign currency obligation, the borrower requires less local currency to purchase foreign exchange to meet the obligation (and therefore, in this case, there is no foreign exchange risk).

4.4.7.3.5. A well-managed entity with a low business risk will have a fairly dependable cash flow and can assume higher financial risks in the form of a large proportion of debt to equity in its capital structure. This would apply, for example, to a public utility with a relatively steady and increasing demand for its services, little competition from other sources of supply, and fairly dependable production facilities. On the other hand, an entity which may be subject to wide variations in demand and prices, such as a steel company or a coffee estate, is likely to have substantial swings in its cash flow from year to year. It should therefore have a relatively conservative financial structure with low fixed financial obligations.

4.4.7.4. Inflation and the Capital Structure

4.4.7.4.1. The risk of inflation is another factor that affects the cost of capital and decisions on capital structure. Although inflation may lower the burden on servicing outstanding debt at fixed terms, it may increase the financial risk associated with loan capital, since the earnings of an enterprise may not keep pace with inflation.

4.4.7.4.2. The interest payable on long-term loans at fixed terms may include a substantial inflation premium over the returns lenders would otherwise accept for the business and financial risks they are assuming. Alternatively, long-term loans may be available only if loan amounts and repayments are indexed for changes in the value of money, or if the interest rate varies with the current cost of borrowings.

4.4.7.4.3. The impact of inflation on financial risk is greatest when only short- or medium-term funds are available, and the enterprise is exposed to the risk of being unable to refinance at maturity or of having to pay higher interest rates for renewal. The risks associated with borrowings under inflationary conditions, therefore, must be carefully appraised in determining a prudent capital structure. Inflation also increases the working capital requirement of enterprises.

4.4.7.4.4. The negative effects of inflation often outweigh the positive effects of lower debt service, and after a few years, the impact may be of under-capitalization.

4.4.7.5. Equity versus Debt

4.4.7.5.1. Equity investors because they are subject to the prior claims of lenders and have no fixed promises of returns, will usually expect a higher return on their capital than lenders. Like lenders, equity investors will accept lower or higher returns when they judge the risks to be low or high. They will consider their risk to be lower when equity is high in relation to debt, and vice versa.

4.4.7.5.2. Thus, when a private enterprise is being established, or is raising funds for expansion, the capital invested ideally should be structured so as to balance the lower financial costs of loan funds against the higher costs of equity capital and provide for long-term financial stability at minimum cost.

4.4.7.5.3. Differences in the capital structure of enterprises in the same industry or in industries with similar business risks may reflect varying management judgments on the trade-off between security and risk, or an unwillingness to adequately fund replacements or expansion, all subject to limitations imposed by protective covenants agreed with lenders.

4.4.7.6. Debt Service Coverage

4.4.7.6.1. Section 3.6.3.3 discusses the application of this indicator in relation to investment projects. The debt service coverage ratio measures the extent of the coverage of an enterprise's debt service by its internal cash generation over a defined period.

4.4.7.6.2. A performance of one means that there is precise coverage, while a performance in excess of one (e.g., 1.3) indicates a margin of safety in covering debt, plus yielding surplus funds for investment, etc. This indicator recognizes that the terms of a debt are more significant than the amount in measuring borrowing capacity. Except for Financial Institution Indicators, the debt service coverage ratio is used for revenue-earning enterprises in all sectors, particularly for public utilities, transportation, and industry, including agro- industry. There are two versions of this indicator: (i) based on historical earnings; and (ii) on estimated future earnings.

4.4.7.6.3. Version (i) is based on historical earnings. It can address either the latest completed fiscal year or a more recent 12-month period. It is more objective and certain than version (ii) which is based on estimates of future earnings. In calculating the internal cash generation, (i) permits an adjustment to be made for changes in sales prices introduced during the year as though they were in effect throughout the year. Nevertheless, this version (i) may be constraining because it gives no credit for the earning power of the investments to be financed by the proposed loan, or any other expected increases in earning power (ADB's loan agreement clause "Except as ADB shall otherwise agree" may be used to overcome this problem, where appropriate).

4.4.7.6.4. Conversely, an EA that fails to implement a project within the grace period of the related loan can be faced with debt servicing demands that cannot be met by the unfinished investment, which is not yielding revenues.

4.4.7.7. Debt-Equity Ratio

4.4.7.7.1. Section 3.6.3.4 discusses the application of this indicator in relation to investment projects. The debt-equity ratio represents the relative proportions of these two sources of funds in the capital structure of an entity. This ratio is not appropriate for measuring financial institution (FI) performance.

4.4.7.7.2. If a capitalization of \$240 million is financed by long-term debt of \$180 million and by equity of \$60 million, the debt-equity ratio would be presented as 75:25. This conventional presentation is normally used for all sectors except financial institutions (FIs).

4.4.7.7.3. The debt-equity ratio indicator is normally used only for new enterprises, such as a “greenfield” industrial plant, where for lack of an earnings record, application of the debt service coverage covenant is not practicable.

4.4.7.7.4. Except for FIs, the debt-equity ratio helps to maintain a satisfactorily balanced financing plan in an enterprise’s early years, but a debt service coverage should be used also, because this is likely to become a more meaningful measure as output commences. It should then supercede the debt-equity ratio covenant after the first year or two of operations.

4.4.7.7.5. The considerations determining the magnitude of the debt-equity ratio are the same as those discussed for debt service coverage. It is generally inappropriate to have a debt-equity ratio higher than 60:40, but flexibility is permissible, depending on the sector or industry concerned, on the degree of capital intensity, and on the level of debt service commitments entered into.

4.4.7.7.6. Where the latter are not severe, a higher ratio may be admissible. For example, where the loan principal is repayable at the end of the term and inflationary conditions prevail; or the interest rate is fixed at a low level; or the prospects for continued intensive borrowing are negligible, giving prospects of declining debt- equity ratios.

4.4.7.7.7. Lower ratios than this are preferable for enterprises whose earnings are subject to wide fluctuations. Higher ratios, normally not greater than 70:30, may be acceptable for enterprises with very dependable earning power. However, there are a number of public sector enterprises, which are funded almost entirely by government debt, where the debt-equity ratio is 90:10 and sometimes 100:0.

4.4.7.7.8. In terms of sound commercial and financial management practice, such ratios are meaningless, but because the enterprises concerned are, in effect, government “departments”, there may be no adverse performance effects, save that debt service could reach unmanageable proportions should the governments concerned ever seek to recover real interest rates. However, in many of these cases, the “debt” is often non-repayable, and interest rates are usually kept low. The indicator in these circumstances has no credibility.

4.4.7.7.9. It should be noted, however, that one of ADB’s long-term objectives for enterprises of this type is, as a minimum to achieve self-financing status, and as an optimum, to achieve privatization. For either option, an unbalanced debt-equity structure of 90:10 or higher will mean that the enterprise will be regarded in the capital markets as not creditworthy, and until it can adopt a structure around 60:40, is unlikely to attract institutional lenders.

4.4.7.7.10. However, an important side issue arises from the highly leveraged enterprises referred to above. While it may be reasonable to accept their status in terms of an abnormally high debt-equity ratio, the financial analyst must recognize that these enterprises are operating on free or very “cheap” capital.

4.4.7.7.11. ADB considers, generally speaking, that enterprises should pay for the use of capital, and that a reasonable interest rate should be levied. If this capital is not transferred in the form of loans and is injected instead as equity, this too has a price – probably a higher price than loan funds if it were sought in the money market. Therefore, the analyst should actively encourage the payment to government for this form of capital injection.

4.4.7.7.12. Any issues should be discussed at Project Preparation, and the RRP should contain a clear statement on the treatment proposed, and justification therefore, particularly if the market price of funds is not to be levied by government.

4.4.7.8. Debt Limitation

4.4.7.8.1. Section 3.6.3.5 discusses the application of this indicator in relation to investment projects. The typical case when this restriction is sought through a loan agreement is when a public authority whose capital structure consists entirely or predominantly of debt, because of statutory requirements that all externally provided investment funds be advanced in the form of borrowing from government.

4.4.7.8.2. It is used infrequently and only where debt service coverage or debt-equity covenants cannot be applied, primarily because the latter ratio is meaningless. For example, the equity may be zero, when all liabilities are in the form of government loans.

4.4.7.8.3. An absolute debt limitation covenant limits the amount of debt that may be incurred annually to an amount agreed between the borrower and ADB, and is either a specified amount expressed in absolute terms, or specified as a proportion of the total capitalization. The borrower would require ADB concurrence before exceeding this limit.

4.4.7.8.4. The limit for new debt is fixed at a relatively small amount, which, together with the internally generated funds that are forecast to be available, permits the borrower to carry out minor plant replacements or improvements without consulting ADB. Whenever the borrower plans a major expansion it must consult with ADB. This form of covenant has substantial disadvantages. It is related to a stated amount of debt without consideration of its terms and without taking into account changes in an enterprise's financial requirements or debt servicing capacity; and it severely restricts an enterprise's freedom of action.

4.4.7.8.5. A more constructive solution would be to agree with the borrower that a substantial part of any loan by the government to the public sector enterprise would be subordinated and treated as quasi-equity capital. This would permit the use of the debt service coverage or debt-equity ratio covenants.

4.4.7.9. Capital Adequacy Ratio

4.4.7.9.1. Section 3.6.3.6 discusses the application of this indicator in relation to investment projects. The capital adequacy ratio indicator is used extensively in commercial banking, and is now being applied to most Financial Institutions (FIs). Section 6.4.3.1 describes the development, calculation, and application of this indicator in detail.

4.4.8. Liquidity Indicators

4.4.8.1. Introduction

4.4.8.1.1. Liquidity indicators are intended to measure the adequacy of an enterprise's working capital, i.e., an excess of current assets over current liabilities, to meet its current obligations in a timely manner and conduct its operations effectively without financial constraints. These indicators were generally used only when working capital requirements were significant, as in the case of most industrial and agro-industrial projects. However, the inability of many EAs to collect and manage their cash resources has brought these indicators into increased attention and popularity.

4.4.8.1.2. While these indicators were not normally used for projects where working capital needs were considered to be relatively small, they are increasing being deployed, particularly as non-covenanted reporting requirements.

4.4.8.1.3. The Current Ratio and Quick Ratio define a specified minimum liquidity ratio and corrective actions will be necessary when the actual ratio falls below the prescribed level.

4.4.8.1.4. The Quick ratio (or acid test) is the preferred indicator because it ignores inventories that are frequently not readily realizable in public utilities (e.g., large water main pipes and electrical transformers that are stored for emergency use).

4.4.8.2. Current / Quick Ratios

4.4.8.2.1. Sections 3.6.4.2 and 3.6.4.3 discuss the application of these indicators in relation to investment projects.

Current Ratio

4.4.8.2.2. The current ratio is the ratio of current assets to current liabilities as of the date of the balance sheet. It is the measure of the adequacy of working capital and short-term liquidity, since it indicates the extent to which short-term obligations are covered by assets that are capable of being converted to cash in a period roughly corresponding to the maturity of the obligations.

4.4.8.2.3. Current assets normally include cash, marketable securities, and other assets, such as accounts receivable, inventories, and prepaid expenses, which in the ordinary course of business are expected to be converted into cash in the next year. Current liabilities are those which would or could become due and payable in the next year, including accounts payable, short-term notes payable, customer advances and deposits accrued taxes and expenses, dividends payable and current maturities of long-term debt.

4.4.8.2.4. The acceptability of a current ratio depends on the type of production and selling operations and the characteristics of the market for the output.

4.4.8.2.5. A ratio of less than 1.0 is generally unacceptable and usually a ratio substantially above 1.0 is deemed necessary. For example, an enterprise subject to seasonal or fluctuating demand for its output, or irregular timings of inventory acquisition/build-up, should have a current ratio high enough to carry the necessary inventories of goods in process and finished and saleable output pending actual sales – possibly as high as 4.0.

4.4.8.2.6. An enterprise such as a public utility, with steady inflows of funds from monthly billings and a good record for prompt collection, may operate with a current ratio as low as 1.0, or even marginally lower. An enterprise which has to transport at its own time and expense large quantities of inputs and finished goods for long distances will likewise require a high ratio.

Quick Ratio

4.4.8.2.7. An alternative and better test of liquidity is the quick ratio. The basic difference between this and the current ratio lies in the treatment of inventories, which are the least liquid of current assets and are also those on which losses are most likely to occur if business conditions are adverse.

4.4.8.2.8. The quick ratio is calculated by deducting inventories from current assets and dividing the remainder by current liabilities. In other respects this form of covenant possesses similar advantages and disadvantages as the current ratio.

4.4.8.2.9. A quick ratio of at least 1.0 is usually prescribed. The current and quick ratio indicators have a serious deficiency in that they present the status of an enterprise at a point in time, and not its regular performance.

4.4.8.2.10. Distortions frequently occur, such as the case of enterprises relying on customers' advance payments for large delivery contracts, which if they do not take place, cause major shortfalls in cash, or if they occur as contracted, may make the ratio far higher than the actual consumption of inputs warrant.

4.4.8.2.11. It is feasible using this indicator to "window-dress" the enterprises' financial status for presentational purposes at the reporting date.

4.4.8.2.12. The intention of covenanting this indicator is to require a borrower to not operate below the covenanted level. However, in practice it can be very difficult to determine defaults during a year. Therefore the most useful application of this indicator is to request an enterprise to provide a graphic presentation of a series of status indicators at, say, monthly, or weekly intervals for each year. In this way, the effective liquidity position can be better determined.

4.4.8.3. Dividend Limitation

4.4.8.3.1. Section 3.6.4.4 discusses the application of this indicator in relation to investment projects. The dividend limitation indicator, with a dividend limitation test, establishes the point at which the borrower is prohibited from declaring a dividend, the payment of which would cause the current ratio (or quick ratio, if that is the selected test basis) to fall below a specified minimum.

4.4.8.3.2. The minimum level of current ratio may be higher than the minimum required under a Current Ratio indicator because decisions on whether to pay dividends are often discretionary, and a stricter standard of prudent financial management can thus be applied to this context. Therefore, a borrower should be asked (through a covenant) not to make voluntary payouts of cash to its stockholders until it has taken further measures to establish and maintain the liquidity essential for operations.

5. Reporting and Auditing

5.1. Financial Reporting and Auditing Overview

5.1.1. This part of the Guidelines addresses the financial reporting by, and auditing of, projects, project EAs, and project implementing agencies (IAs). It also advises on the selection and terms of reference of public and private sector auditors, particularly in relation to the qualifications and competence of government auditors. Arrangements for monitoring and reviewing financial reports and auditors' reports are explained in detail. A checklist is provided for reviewing auditors' reports.

5.1.2. Together with Part 3 (Preparing and Appraising Investment Projects) and Part 4 (Financial Management of Executing Agencies), this part aims to: (i) provide financial analysts with detailed guidelines to enable them to advise governments, EAs, and IAs on ADB's financial reporting and auditing requirements; and (ii) facilitate the identification of inadequate financial reporting and auditing performance by EAs, IAs and auditors.

5.1.3. It is based on the Operations Manual (OM), Project Administration Instructions (PAIs), and related guidance documents. Part six of these guidelines provides specific guidance on particular financial reporting and auditing issues for Financial Institutions (FIs). In addition to this introduction and overview, this part has five sections:

5.2	Accounting Standards and Policies	This section describes accounting standards and their applicability to financial reports on ADB-financed projects.
5.3	Financial Reporting	This section outlines ADB financial reporting requirements for ADB-financed projects.
5.4	Auditing Standards and Auditor Engagement	This section describes auditing standards and their use in the audit of the financial reports of ADB-financed projects.
5.5	Reviewing Financial Reports	Project Administration Instruction 5.09 sets out ADB requirements for monitoring financial reporting. This section discusses the process of reviewing financial reports and outlines actions that should be taken

where financial reports are overdue or are inadequate.

5.6 Reviewing Audit Reports

This section provides guidance on reviewing auditor reports. It includes an audit report questionnaire.

5.2. Accounting Standards and Policies

5.2.1. Introduction

5.2.1.1. The preparation and reporting of accounting information varies widely among countries and contributes to a substantial lack of transparency and consistency in financial reporting. This means that precise interpretation of public and private sector financial statements can be a daunting process. At best, they may be misleading; at worst, they may be fraudulent. A serious ADB concern is the accurate interpretation of the financial position and performance of its borrowers and EAs. It is even more important for investors and those charged with the safeguarding of trading operations in stock exchanges, brokerage houses and banks to have confidence in reported financial performance and position.

5.2.1.2. In recent years, there has been significant progress in the availability and usage of internationally-consistent accounting standards. First, the International Accounting Standards (IASs) issued by the International Accounting Standards Board (IASB) were developed to the point where they presented a viable, and arguably preferable, alternative to nationally-developed accounting standards. Second, most developed and developing countries are in the process of either harmonizing their accounting standards with IASs or adopting IASs directly. Financial analysts should be conversant with the status of these developments.

5.2.1.3. ADB, together with other international financial institutions (IFIs), including the other multilateral development banks (MDBs), is actively encouraging borrowers and EAs to adopt uniform standards of accounting and financial reporting. In this respect, ADB recommends that revenue-earning EAs report in accordance with IAS-compliant accounting policies.¹⁴ However, some time will be required to achieve a high level of uniformity. In the case of non-revenue-earning EAs in the public sector, ADB expects sound financial policies, adequate accounting records, proper internal control systems, timely reporting to management, and sound auditing practices.

¹⁴ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

5.2.1.4. This section discusses ADB's approach to the application and use of accounting standards and policies by borrowers.

5.2.2. International Accounting Standards (IASs)

5.2.2.1. Differences in financial reporting practices and accounting standards can be significant between countries. The factors that influence the development of accounting practices and the differences between countries in terms of these practices include the nature of a country's legal system, the prevalent providers of finance, the influence of taxation, and the strength of the accountancy profession.

5.2.2.2. The International Accounting Standards Board (IASB), which superseded the International Accounting Standards Committee (IASC) on 1 April 2001, promulgates IASs. The IASB's objectives are to: (i) develop, in the public interest, a single set of high quality, understandable and enforceable global accounting standards that require high quality, transparent and comparable information in financial statements and other financial reporting to help participants in the world's capital markets and other users make economic decisions; (ii) promote the use and rigorous application of those standards; and (iii) bring about convergence of national accounting standards and IASs to high quality solutions. IASs are appropriate for private sector reporting and for reporting by government business enterprises, including public utilities (e.g., electricity, gas, water and sanitation, and telecommunications). The Knowledge Management section of these guidelines provides a list of IASs. Further information is provided at www.iasc.org.uk and at www.iasplus.com.

5.2.2.3. Surveys of national accounting standards show that most countries are aligning their accounting standards with IASs. Some countries have adopted IASs completely. In particular, the G7 Group of nations has pledged to align their accounting standards with IAS and the European Union has decreed that all member countries should adopt IASs for listed company reporting by 2005. The status of country-adoption of IASs can be examined at the IASB's website (www.iasc.org.uk).

5.2.2.4. In 1998, the IMF was charged with monitoring the country adoption and usage of IASs. Consequently, countries will be under pressure to adopt some form of accounting standards in close harmony with IAS, if not the complete IAS package of standards. The G7 expects the IFIs, including ADB, to contribute to advancing the use of IAS in their member countries. These contributions may be by requiring use of IASs in financial reporting to ADB, and by providing assistance in appropriate cases to modify systems and build capacity.

5.2.3. ADB Accounting Policy Requirements

5.2.3.1. Requirement to Meet International Standards

5.2.3.1.1. Financial analysts need to fully understand IASs. They also need to be reasonably familiar with the accounting standards in use in the countries in which they operate. In this respect, financial analysts should review Country Diagnostic Studies of Accounting and Auditing (DSAAs), where they have been prepared (see section 4.2.5). More particularly, financial analysts should become familiar with the accounting policies used by the EAs and IAs that manage ADB-financed projects. This will enable analysts to recommend approaches that will: (i) provide ADB with adequate information to understand the efficiency of the management of borrowers' investments; and (ii) contribute to narrowing differences between IASs and national accounting standards.

5.2.3.1.2. ADB will seek to agree with the borrower, EA and PIU on the acceptable accounting standards and policies governing the preparation of financial statements not later than at loan negotiations. Financial statements for private sector companies and organizations, and for revenue-earning public sector EAs, should be prepared in accordance with accounting policies that are consistent with IASs.¹⁵ Alternatively, ADB may accept audited annual financial statements of projects, EAs and IAs that are based on national or other defined standards, provided that the Notes to the Financial Statements include realignments and adjustments of the financial information in the audited annual financial statements to provide a report in accordance with IASs. In relation to non-revenue-earning projects in the public sector, ADB expects sound financial policies, proper accounting records, proper internal control systems, timely reporting to management, and sound auditing practices.

5.2.3.1.3. ADB therefore recommends that all public and private sector revenue-earning EAs and IAs should move to account and report for projects financed by ADB on the basis of accounting policies consistent with IASs current at the date of loan negotiations, or any other date(s) in the project implementation period agreed between ADB and the borrower. Borrowers, EAs or IAs should adopt IAS-compliant accounting policies by an agreed date.¹⁶ Until this time, financial statements should be prepared in accordance with a set of accounting policies acceptable to ADB and noted in the Minutes of Loan Negotiations.

¹⁵ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

¹⁶ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

5.2.3.2. Timetable to Introduce Acceptable Accounting Policies

5.2.3.2.1. ADB expects that public and private sector revenue-earning project financial reports will be prepared on the basis of IAS-compliant accounting policies.¹⁷

5.2.3.2.2. In some cases, national accounting standards and practices will not conform to accepted international standards.

5.2.3.2.3. Where only minor items are involved (for instance, overhead-allocation methods or inventory-valuation policies), the continued use of these standards and practices may be acceptable so long as the variances are quantified and disclosed in the Notes to the Financial Statement and in the Auditor's Report.

5.2.3.2.4. ADB recognizes that some time will be required for borrowers, EAs and IAs to adopt IAS-compliant accounting policies and will negotiate with existing borrowers on a project-by-project basis for the timing of their introduction.

5.2.3.2.5. In these instances, financial analysts should coordinate with the Supreme Audit Institution (SAI) of the borrowing country, the EA and the PIU, to determine required modifications of accounting policies and the required date for their introduction. The introduction date of the revised policies and practices may be included as a loan covenant, or as a requirement prior to the commencement of project implementation activities.

5.2.3.2.6. ADB will develop a timetable for each borrower and EA in the private sector and for each public sector revenue-earning EA for the complete adoption of accounting policies that are consistent with IASs, or to local standards that are similar to IASs.¹⁸ In this respect, financial analysts should review the action plans developed as part of the Country Diagnostic Studies of Accounting and Auditing (DSAAs), where they have been prepared (see section 4.2.5).

5.2.3.3. Statements on Accounting Standards and Policies

5.2.3.3.1. Financial analysts should pay close attention to the text or wording of statements made by EAs in the financial statements on the accounting standards and policies used to prepare the reports. Attention should also be given to auditors' comments on the accounting standards and policies used.

¹⁷ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

¹⁸ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

5.2.3.3.2. It is common for financial statement preparers (i.e., EAs) and external auditors to use vague phrases, such as “approved standards”, “official local standards”, and “international standards”. Analysts should insist on the accurate description of both accounting standards and policies used to compile the financial statements and the definition of the auditing standards applied by the auditor.

5.2.3.4. ADB Reports on Accounting Standards and Policies

5.2.3.4.1. ADB reports relating to project identification, preparation, appraisal (RRP) and supervision should describe the current status of application and use of IASs in the country concerned, and by the EA and/or PIU.¹⁹ The reports should include recommendations, or commentaries on, timetables and associated steps by ADB to encourage borrowers, EAs and IAs to adopt IAS-compliant accounting policies.

5.2.3.5. Example of Accounting Policies

5.2.3.5.1. Accounting policies are the specific principles, bases, conventions, rules and practices adopted by an entity in preparing and presenting financial statements. Financial statements must include a Statement of Accounting Policies. In the case of non-revenue-earning EAs, Statements of Accounting Policies are likely to be simplistic (for instance, they may cover only cash-recognition policies).

5.2.3.5.2. The following table provides guidance on General Accounting Policies. Particular Accounting Policies should set out the policies applicable to revenues, expenses, assets and liabilities. It is highly recommended that financial analysts review the model set of IAS-based accounting policies and financial statements available at www.iasplus.com. An IAS disclosure checklist is also available from this website.

¹⁹ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

Issue	Details	Example
Reporting Entity	The accounting policies should clearly define the reporting entity.	<i>These are the consolidated financial statements of ABC Limited and its subsidiaries: DEF Limited, GHI Limited and JKL Limited.</i>
Reporting Period	The reporting period should be stated.	<i>These financial statements apply to the financial year ended 31 December 20X2.</i>
Legislative Basis	The legal basis under which the financial statements have been prepared should be clearly stated.	<i>These financial statements have been prepared in accordance with Article 123 of the Companies Act 20X1.</i>
Accounting Policy Basis	The accounting policy basis should be stated.	<i>These accounting policies are based upon the International Accounting Standards (IASs) issued by the International Accountants Standards Board (IASB as at 30 September 20X2. Where no IAS has been issued on specific topics, the accounting policy is based on other authoritative sources</i>
Measurement Base	The measurement base used to prepare the financial statements should be described.	<i>These financial statements have been prepared using the accrual basis of accounting. The measurement base applied is historical cost adjusted for revaluations of assets.</i>
Changes in Accounting Policies	Changes in accounting policies should be noted.	<i>There have been no material changes in accounting policies during the financial year.</i>
Going Concern	There should be a clear statement as to whether or not the entity is a going concern.	<i>The financial statements have been prepared on a going concern basis.</i>
Indirect Taxes and Duties	The treatment of indirect taxes and duties should be clearly stated.	<i>Revenue and expense items are recognized net of VAT. The net amount receivable in respect of VAT is included as part of accounts receivable. Assets are recorded net of VAT if the tax is recoverable.</i>

Issue	Details	Example
Comparatives	Where there have been changes of format or presentation from one accounting period to the next, comparatives should be restated, and that fact disclosed in the notes to the financial statements together with any explanation necessary for the reader to understand the changes which have occurred.	<i>Where there is any change of format or presentation from one accounting period to the next, comparatives are to be restated, and that fact disclosed in the notes to the financial statements together with any explanation necessary for the reader to understand the changes that have occurred.</i>
Basis of Combination (Consolidation)	Where consolidated financial statements have been prepared, the combination basis should be stated.	<i>Controlled entities are consolidated using the purchase method of combination. Corresponding assets, liabilities, revenues and expenses are added together line by line. Transactions and balances between these sub-entities are eliminated on combination.</i>
Related Parties	The policy applied to the disclosure of related-party transactions should be stated.	<i>There were no related party transactions during the financial year.</i>
Foreign Currency	The basis for recording foreign currency transactions and translating these transactions and balances should be stated.	<i>Foreign currency transactions are measured and recorded in United States Dollars (USD) using the exchange rate in effect at the date of the transaction. However, where short-term transactions are covered by a forward exchange contract, the forward rates specified in those contracts have been used to translate the transactions into USD. At the end of each reporting period any foreign currency monetary balances (being money held and assets and liabilities to be received or paid in money) have been translated into USD using the spot exchange rate in effect on that date. Exchange differences, arising when there is a change in the exchange rate between the transaction date and the date of settlement, have been recognized as either revenues or expenses.</i>

5.3. Financial Reporting

5.3.1. Introduction

5.3.1.1. This section describes the required form and timing of reports on the financial position and performance of projects and, where applicable, of EAs and IAs. ADB seeks to agree with borrowers, EAs and/or IAs at loan negotiations to receive, for each project, interim and annual audited financial statements acceptable to ADB in respect of each fiscal year (OM 43 and GP 43).

5.3.1.2. In cases where an ADB TA grant is provided in parallel with, and linked to, an ADB loan to a borrower for the same project operation, the provisions for financial reporting and auditing set out in this part of the Guidelines will apply. Depending on the obligations agreed upon by ADB and the borrower and its EAs and IAs on the progress of a project, ADB typically requires the submission of periodic progress reports, including financial reports, covering: (i) the progressive interim, annual, and final costs of a project; (ii) where appropriate, the financial performance and financial position of an EA or PIU; (iii) accountability for the funds, including ADB loans, provided for project implementation; (iv) the bases for disbursements of proceeds of ADB loans; (v) the extent of compliance with financial and related covenants, and (vi) the effectiveness of project-related financial management and accounting systems as specified by ADB and agreed to by the borrower.

5.3.1.3. Early in the project processing cycle, preferably at project identification, the financial analyst should inform borrowers, EAs and IAs of the project accounting and auditing requirements. Commitments are to be sought, as confirmed in a subsequent Aide Memoire and in the loan agreement as to the nature, form and manner of compliance, and the timing of the appointment of the auditor. Where necessary, commitments are to be detailed in the minutes of loan negotiations. The appointment of auditor should be made either before the date of ADB loan approval or the start-up date of the project.

5.3.1.4. Borrowers and EAs should be reminded of the need to inform other concerned entities or persons on ADB's reporting requirements including: (i) a government ministry responsible for the performance of an EA, and for assigning or appointing the auditor; (ii) a government auditor mandated by law to audit the accounts of the EAs or IAs; (iii) private or commercial auditors acting on behalf of, or in substitution for, a government auditor; and (iv) a principal or holding company having financial responsibility for the EAs or IAs. Early notification of ADB requirements to the above responsible authorities is essential to enable the Project Officer to assess the likely prospects for compliance prior to, and during, appraisal. This will also allow the Project Officer to comment on the expected performance and quality of financial reporting and auditing in the RRP and, if necessary, in the project identification and preparation BTORs.

5.3.1.5. Reports on project identification, preparation, appraisal (RRP) and supervision should include a reference to the accounting standards and policies adopted by the borrower's EA and PIU, and their acceptability to ADB. Any modifications that will be, or have been, made to financial reporting requirements should be communicated to ADB.

5.3.2. Content and Timing of Financial Reporting

5.3.2.1. ADB recognizes that many project financial statements, particularly those prepared for non-revenue-earning projects, are of a "special purpose nature". Consequently, ADB requires that financial information submitted by non-revenue-earning entities adhere to an appropriately designed format acceptable to ADB.

5.3.2.2. The following fundamental principles should apply to all interim and annual financial statements on projects issued by a borrower: (i) disclosure of full accountability for all funds of the borrower, other donors and lenders, and ADB; (ii) compliance with loan covenants and ADB requirements for project management; (iii) adequate disclosure of all material information; and (iv) a true and fair view, or a fair presentation in all material respects, of the financial performance and status of the project (and where applicable, of the EA/PIU).

5.3.2.3. In addition, the following fundamental principles apply to annual financial statements only: (i) a clear statement on the accounting policies and accounting standards adopted; and (ii) the results of an independent review of the financial accounts and financial management systems by an auditor acceptable to ADB.

5.3.2.4. Interim and annual financial statements relating to each project should be presented in the English language and show sufficient information to identify separately the transactions relating to the reporting year and the cumulative transactions from the date of start-up (PAI 5.10 refers). This applies particularly to those expense and revenue categories contained in the loan agreement and/or RRP and revisions thereto. The reporting year includes a part-year from the start-up date to the end of that fiscal year, and a part-year from the start of the fiscal year in which a project is closed, to the date of closure (PAI 5.10 refers). "Date of start-up" means the date of the first financial transaction that is the subject of the Project Cost Table and/or the project operating costs and revenue forecasts referred to in the RRP. Therefore the date of start-up could include the date when costs that were approved for retroactive financing were incurred (e.g., design costs or mobilization expenses) (PAI 5.10 refers).

5.3.2.5. In a case where there are no financial transactions in the first fiscal year (or part thereof), if an Imprest Account has been established with ADB funds, this transaction must be reported in the annual financial statements, even where there have been no

withdrawals therefrom (PAI 5.10 refers). In the event that a PIU or EA was established and local counterpart funds were expended (e.g., on salaries and wages) but no project implementation occurred, the first year's annual financial statements should be provided to ADB showing the operating costs of the PIU/EA (PAI 5.10 refers).

5.3.2.6. Audited annual financial statements of non-revenue-earning EAs are required in the English language for each fiscal year of project development and implementation, including the year of final commissioning of the project. Interim and annual statements may combine financial transactions of a project with those of the EA, where the agency is established solely for purposes of developing the project.

5.3.2.7. Where an EA is responsible for implementing defined subprojects (with or without engaging PIUs for subproject implementation) separate financial statements should be provided for each defined component together with a consolidated financial statement for the complete project. Where an EA is responsible for developing more than one project, common or joint project financial transactions of the agency may be apportioned and allocated to each project on a basis defined in the Notes to the Financial Statements. For projects where multiple EAs are required to submit separate APA/CFS, compliance details will be recorded separately in PPRs indicating separate status of compliance and ratings which will be the basis for calculating the overall APA/CFS rating/compliance of the project (PAI 5.10 refers).

5.3.2.8. For a revenue-earning project, ADB requires English language presentations of audited annual financial statements of the project and of the borrower or project EA for the period of the loan. The reports on the project may be incorporated within EA financial statements provided that the statements explicitly describe the financial status and performance of the project for the fiscal year, the previous fiscal year and from start-up. Interim financial reporting should follow the format of the annual financial statements, but should cease on completion of ADB disbursements.

5.3.2.9. Borrowers are asked to provide interim and audited annual financial statements in accordance with a timetable agreed with ADB. Interim financial reports are normally required at intervals of three, four or six months of each fiscal year. Audited annual financial statements should be provided normally within six to nine months (or such other period as ADB may agree) following the end of each fiscal year.

5.3.2.10. Where audited financial statements are to be first submitted to a government legislature, (with the risk thereby of substantially delaying the transmission of the audited financial statements to ADB), a draft thereof, certified by the chief financial officer and the auditor, should be submitted to ADB within the required reporting timetable, with subsequent confirmation after they have been ratified by the legislature.

5.3.2.11. Interim and annual financial statements should normally be presented in the local currency, with the basis for translation of any foreign exchange transactions or commitments explicitly stated.

5.3.3. Accounting Statements and Financial Reports

5.3.3.1. The following table summarizes the financial reporting requirements for projects and EAs/PIUs. While the reporting requirements for revenue-earning projects and EAs/PIUs are uniform, those for non-revenue-earning projects and EAs/PIUs are not.

5.3.3.2. The most significant difference among the financial reports of non-revenue-earning projects and EAs/PIUs depends on whether entities use the accrual or the cash basis of accounting. Under the cash basis of accounting, nonfinancial assets (for instance, fixed assets, receivables, inventories) will not be systematically recorded. Consequently, the information that is necessary to prepare Income Statements and Balance Sheets will not be available; instead, Statements of Cash Receipts and Payments will be prepared. Where accrual accounting is used, Statements of Income and Expenses will be prepared along with Balance Sheets. Accrual statements should always be supplemented with a Cash Flow Statement. While many ADB DMCs have signaled their intention to adopt the accrual basis of accounting, this will take many years. However, non-revenue-earning entities in some countries that have historically used the Soviet Accounting System (e.g., Uzbekistan), may prepare accrual-based financial statements.

5.3.3.3. The purpose and format of each accounting statement, which is listed in the following table, is described in the following subsections.

Accounting Statements and Financial Reports

Accounting Statements	Non-Revenue-Earning Projects and Executing Agencies (PIUs)		Revenue-Earning Projects and Executing Agencies (PIUs)	
	Interim (PMRs)	Annual Audited	Interim (PMRs)	Annual Audited
Statement of Accounting/Financial Policies	...	✓	...	✓
Statement of Income (Cash Receipts)	✓	✓	...	...
Statement of Expenses (Cash Payments)	✓	✓	...	...
Cash Flow Statement	✓ note (i)	✓ note (i)	✓	✓
Imprest Account Statement	✓	✓	✓	✓
Statement of Expenditures (SOE)	✓	✓	✓	✓
Income Statement	These statements are usually not prepared, as most non-revenue-earning projects currently use the cash basis of accounting		✓	✓
Balance Sheet			✓	✓
Notes to the Financial Statements	✓ note (ii)	✓ note (ii)	✓ note (i)	✓ note (i)
Other Information	✓ note (iii)	✓ note (iii)	✓ note (iii)	✓ note (iii)

(i) The content and format of Cash Flow Statements for non-revenue-earning projects (and EAs) will not necessarily conform to international accounting standards or to national accounting standards.

(ii) The notes to the financial statements provide further breakdowns or explanations of the information provided in the main financial statements.

(iii) The scope and nature of other information provided will be negotiated between ADB and the borrower.

Statement of Accounting or Financial Policies

5.3.3.4. As discussed in section 5.2.3, and irrespective of whether the cash or accrual basis of accounting is used, a clear statement of the accounting or financial policies that underlie the accounting statements must be provided.

Statement of Income (or Cash Receipts)

5.3.3.5. Shows the year's complete financial information, and cumulative data from project start-up to date. Where the cash basis of accounting is followed, the opening and

closing cash balances should be shown. ADB financing should be subdivided as follows when ADB disburses via SOE procedures: (i) by expenses category in the loan agreement, RRP or revisions thereto; (ii) disbursements via SOE; and (iii) other methods.

Statement of Expenses (or Cash Payments)

5.3.3.6. Shows the year's financial information, and cumulative totals from project start-up to the current date. Where the accrual basis of accounting is used, this statement will include non-cash items, such as depreciation.

Cash Flow Statement

5.3.3.7. The Cash Flow (or project funds) Statement should include:

- Sources of project financing (for example, ADB, Government contribution, etc.), and by methods of disbursement by ADB (for example, direct payment, imprest account, etc.)
- Uses of funds summarized under project disbursement categories as per the loan agreement (for example: equipment, civil works, consultant services and training, and "Other" which may be further subdivided following start of project implementation)
- The opening and closing cash balances; and
- In accordance with IAS 7, separate disclosure is required of funds that are not available for use, such as confirmed future commitments.

Imprest Account Statement

5.3.3.8. This statement summarizes ADB's advances and replenishments, less amounts withdrawn by the project entity, showing the remaining cash balance in the Imprest Account.

5.3.3.9. Bank statements should be provided by each local bank that is selected to operate each imprest account, where these are in use for the project. Each bank statement should summarize the current year's advances and replenishments, interest earned on balances; less withdrawals for project expenditures. The first account is used to receive money from ADB for the credit of the "Project Imprest Account", and the second may be used by the project for local operating purposes ("Second Generation Imprest Account"). The Project Imprest Account is to be used to replenish the SGIA, when this is in use. It will be necessary to attach "Reconciliation Statements" to reflect in-transit items between ADB and the Imprest Account and between Imprest Account and the SGIA. (Replenishment made by ADB not yet received; and reimbursements to the SGIA

from the Imprest Account not yet received by it). The third financial statement is a detailed statement of transactions of the Imprest Account's Operating Account(s). This is to be generated by the EA, where the Imprest Account is used to make direct payments in local and foreign currency.

Statement of Expenditures (SOE)

5.3.3.10. The Statement of Expenditures (SOE) procedure is an ADB reimbursement procedure that does not require submission of supporting documentation. The SOE form should include certification, confirming existence of registration for mobilization and secured advances/deposits. The ADB Loan Disbursement Handbook describes the use of this method and associated reporting and auditing procedures.

Income Statement and Balance Sheet

5.3.3.11. These statements may not be necessary where cash accounting is used. These statements are described in section 4.3.4 (*Preparing Financial Tables*).

Notes to Financial Statements

5.3.3.12. The EA should provide Notes to the financial statements. These should be explanatory notes and/or supplementary financial statements that analyze or qualify important heads of account, or that present the information in conformity with generally accepted accounting practices of the country.

5.3.3.13. For example, if Statements are prepared on a "cash basis", information may be required from the EA to convert key items to an "obligation" or "accrual" basis and ADB, therefore, may seek details relating to obligations (unpaid commitments and accounts receivable) in supplementary statements. Similarly, details may also be required to distinguish between transactions relating to capital (development) investments and operating expenditures.

Other Information

5.3.3.14. ADB wishes to receive financial reports on a project that illustrate both performance in the fiscal year under review and accumulated transactions from project commencement particularly with regard to sources of funds and expenditures for assets and inventories.

5.3.3.15. Reporting practices in some government entities require only disclosure of annual financial transactions against annual budget authorizations. Therefore, in order

to monitor performance from start-up throughout the project's implementation period, the reported results of project transactions and financial performance data for previous fiscal years should be included as memorandum entries in a current fiscal year's Statement of Income (or Cash Receipts) and Statement of Expenses (or Cash Payments).

5.3.3.16. Alternatively, the reported results of prior years may be included in the annual financial statements as of the last day of the reporting fiscal year, that summarizes and classifies all receipts and expenditures relating to the project from its commencement. In addition, the accumulated sources or provision of funds for the project in the ratio agreed upon between the borrower and ADB should be disclosed in the Notes to the financial statements.

5.3.4. Interim Financial Statements and the Project Management Report (PMR)

5.3.4.1. During the course of each financial year, ADB requires Project Financial Management Reports (PMRs) as part of the system for monitoring a project's performance. The PMR is required on a periodic basis, and is designed to assist the EA/PIU to maintain regular control of project performance. The PMR financial statement is an interim financial statement that is a useful tool for reviewing progress and for planning, and is recommended for all projects.

5.3.4.2. The information in the PMR should be provided in respect of: (i) the most recent completed financial period (normally a quarter or semester of a year); (ii) the totals for the year to date; and (iii) cumulative totals to date from the beginning of the project.

5.3.4.3. The PMR should also show, for each line item, the planned/budgeted amounts for comparison with the actual reported information, with variances shown between actual and the plan. Explanations should be attached to the PMR with respect to significant variances for use in managing and monitoring the project.

5.3.5. Audited Project Financial Statements

5.3.5.1. Audited annual project financial statements should be provided to ADB to fulfill the fiduciary requirements of the borrower, cofinancier/ donor(s), and ADB. These financial statements may be classified into two broad categories:

- Annual financial statements in respect of a non-revenue-earning project only that may also include information on the performance and status of the EA where this agency has no other financial performance commitments to ADB under a loan agreement; and

- Annual financial statements in respect of a revenue-earning project and of the project EA where the latter is an autonomous or semi-autonomous revenue-earning entity with responsibility for implementing the project, usually to provide an addition to its revenue-earning capacity.

5.3.6. Annual Financial Statements for a Non-Revenue-Earning Project

5.3.6.1. Annual financial statements should be prepared by an EA in respect of a project only particularly where the project is non-revenue-earning and is implemented by organizations of national, provincial, state or regional and/or local governments. Financial transactions relating to the EA may be included as line items in project income and expenses.

5.3.6.2. The statements may take the following forms and may be produced in the local budgetary and accounting formats for the project and, where applicable, for the EA concerned:

- Statement of Income (or Cash Receipts)
- Statement of Expenses (or Cash Payments)
- Imprest Fund Account
- Statements of Expenditure; and
- Notes to the Financial Statements

5.3.7. Annual Financial Statements for Revenue-Earning Projects and EAs

5.3.7.1. Borrowers are asked to provide ADB with annual financial statements in respect of each autonomous or semi-autonomous EA that plays a substantive role in implementing and/or operating a project having revenue-earning characteristics. These financial statements should contain details sufficient to identify the financial performance and status of the project/EA. Normally these should comprise:

- A Balance Sheet showing the financial position of the entity, including the project, as at the close of each fiscal year.
- An Income (or Operating, or Income and Expenditure, or Profit and Loss) Statement.
- A Cash Flow Statement that should disclose the cash flows during each Fiscal year.
- An Imprest Account Statement.
- Record of Statements of Expenditures.
- Notes to the Financial Statements.

5.3.7.2. Financial statements should include comparative figures for the preceding fiscal year; with appropriate supporting schedules and explanatory notes (e.g., methods of revaluation of assets; unusual conditions that affected performance). Supplementary financial statements should be provided containing information requested by ADB with respect to items requiring additional disclosure or explanation.

5.3.7.3. At appraisal, the proposed EA would be expected to provide these statements with an auditor's opinion and report for the most recent years of its performance as an established agency, usually five fiscal years preceding the date of appraisal.

5.3.7.4. During project implementation, an extended form of the PMR is requested for each autonomous or semi-autonomous EA that plays a substantive role in implementing and/or operating a project having commercial or revenue-earning characteristics. Unaudited interim Cash Flow Statements and Balance Sheets, may be required for specified periods of each fiscal year – for example, each quarter or semester – in addition to audited annual financial statements.

5.3.7.5. An Income Statement should report the results of operations for the period covered under major categories of financial information. These may embrace, but are not limited to the following: (i) operating revenue by categories of sales or service charges; (ii) operating expenses by category (e.g., labor, supplies, and administration; cost of sales, or transmission and distribution, etc.); (iii) depreciation; (iv) income from sources other than operations; (v) taxes on income; (vi) interest and financing costs charged to operations; and (vii) net income.

5.3.7.6. The Cash Flow Statement should show, during the period covered by the Income Statement, the origins of all cash flows and their use in financing the project, any expansion of the entity, debt service, working capital, and, where appropriate, payment of dividends on equity or other forms of surplus funds distribution. ADB prefers that this Cash Flow Statement be designed and presented in a manner which illustrates the cash flow of the entity during the period, with separately identified information on non-cash and working capital transactions.

5.3.7.7. The Balance Sheet should be drawn up at the close of a reporting period and should display fixed, current and other assets, with liabilities, particularly long-term and short-term debt, paid-up equity, and accumulated earnings and surpluses. To best illustrate the nature and business of the entity, the Balance Sheet should be compiled in a manner that highlights such important characteristics as the capital structure, the liquidity position, or the reserves.

5.3.8. Supplementary Financial Statements

5.3.8.1. ADB will normally specify the form and content of supplementary financial statements to be attached to the standard annual financial statements, but borrowers should include all information that is considered informative and appropriate to illustrate the performance of project implementation and operation. The following are examples of information that may be requested by ADB:

- a detailed summary of the fixed assets of an entity distinguishing between assets in service and construction work in progress, and accounting for changes during the year, the basis for their valuation (and revaluation, where applied), and related accumulated depreciation, including an explanation of the methods and rates of depreciation (frequently required for public utilities).
- A summary of long-term debts, including lenders, terms, amounts outstanding showing subborrowers repayment history, amounts still to be disbursed showing currencies of repayment, and noting the extent to which any of the entity's assets have been pledged (frequently required for financial institutions).
- A summary of accounts receivable and accounts payable in terms of their age, showing differences in accounts outstanding for government and nongovernment parties (frequently required where agencies of governments do not meet their commitments to public utilities).
- A summary showing major categories of inventory and the basis of their valuation.
- For financial institutions, a summary of subborrowers' accounts showing the short-term and long-term positions, with an explicit statement on provisions for losses (bad and doubtful debts), their methods of computation, and the adequacy of securities.
- Information on costs of sales, labor costs, and other important items in the Income Statement.
- Comparators and performance indicators showing the methods of calculation and tracking record from start-up of the project or such other date as shall be agreed with ADB.
- An analysis of any asset and debt revaluation, method used, and the effect on the entity's financial position.
- A statement of budget allocations and actual expenses to date.

5.3.9. Designing Financial Reports for Revenue-Earning Projects

5.3.9.1. The characteristics of the project and of the EA should normally determine the detail and timing of periodic financial reports. Normally, a revenue-earning EA should be asked to provide the following financial statements and information:

- balance sheets showing the EA's financial condition at the opening and close of a financial reporting period (usually a part or the whole of a fiscal year)
- combined income statements for the project and the EA for the current and previous reporting period or fiscal year
- statements of cash flows for the EA for the current and previous reporting period or fiscal year, showing flows specific to the project, and
- Notes to the Financial Statements plus supplementary information and disclosures necessary to support or explain information presented in the reports.

5.3.9.2. In all cases referred to above, where the financial statements include information relating to the operation of the EA, the financial and statistical data relating to a project should be clearly segregated and reported within each statement. In particular, if the project has been under implementation for more than two years, the Notes to the Financial Statements should provide a listing of annual expenses against annual budgets.

5.3.9.3. Where subborrowers or secondary EAs are responsible for implementation of project components, they should be required by the borrower or the principal EA to provide similar financial statements necessary to document project activities, and where appropriate, their own financial performance and status.

5.3.9.4. EAs for revenue-earning projects are required to provide updated forecasts after loan signing and the start of project implementation, for a specified period. These updated forecasts provide early warnings of project problems so that timely corrective actions can be taken. The specified period is at the discretion of the financial analyst but will normally be from three to five years following project completion. Likewise, an EA for a revenue-earning project will normally be required to submit audited annual financial statements for a specified period for monitoring purposes. This requirement will be specified in the loan agreement. The exact period is at the discretion of the financial analyst and will normally match with the specified period for which updated forecasts are required to be provided.

5.3.9.5. Arrangements should be made by the management of the regional division concerned to retain the relevant records within the Division, or to have ready access made available by Records Section, for the requisite period.

5.3.10. Designing Financial Reports for Non-Revenue-Earning Projects

5.3.10.1. While annual financial statements are likely to be required to demonstrate the financial position and performance of all revenue-earning EAs, including project implementation and operational performance, the requirements for non-revenue-earning EAs are usually determined on a case-by-case basis.

5.3.10.2. Many of these projects are in the public sector, and are implemented and operated by government departments or agencies. In each case, it should be decided whether financial reporting is limited to project activities only, or the project-related activities of the EA that manages the project, or the whole agency. For example, a health care center project to be implemented by a regional or district health authority is unlikely to require an audit of the related Ministry of Health or of a complete Regional Health and Hospitals Division.

5.3.10.3. However, in case of a project that includes the reorganization or improvement of the financial management of a Ministry or a municipality, ADB may require financial reporting and auditing of these institutions. This requirement would assist in the monitoring of performance of project implementation, even though the project's principal components may be non-revenue earning. Examples are provided in the box below.

**Examples of Financial Reporting and Auditing Requirements
For a Government Ministry**

A Hospital Management Division of a Ministry of Health is required to administer an annual budget of \$2.5 million equivalent. It has no effective budget compilation procedure, because it has no budgetary control records, nor does it maintain any records of individual hospitals' expenditures and incomes. A health project component is introduced to rectify these budgetary and accounting failures, and to ensure that mismanagement of funds could not occur in the future. By requiring the preparation of financial reports on this Hospital Management Division's activities, and audits thereof, ADB can monitor the extent to which mismanagement is being replaced by a sound system.

For a Local Government Municipality

A housing sites and services project may be used as a means of improving the financial management of municipal housing by providing financial assistance to improve the accounting and rent collection control systems within the municipality. The municipality also regularly subsidizes its housing stock. In order to ensure that this stock does not place an unreasonable burden on the remainder of municipal services, ADB requires that audited financial statements of the municipality, which will show the overall finances of the municipality, the housing subsidies, and the housing accounting and income control, are to be provided.

5.3.10.4. Project objectives, particularly financial objectives, will also determine the scope of financial reporting requirements. Projects developed in some sectors by a municipality or regional authority may have components that may not be revenue-earning and may or may not affect the EA's financial performance or status. For example, a sites and service housing scheme could be executed by a municipality using grant funds, with resulting increases in property tax revenues from the higher property values accruing to the municipality.

5.3.10.5. If, in such a case, a project objective is the improvement of municipal finance and operations, the reporting requirements should address the municipality as a whole, or specified key activities or departments. But if the objective is slum upgrading only, the project could be treated as non-revenue-earning, and the reporting requirements could be limited accordingly.

5.3.10.6. Broadly, ADB requires financial reporting and auditing of non-revenue-earning projects: (i) for project transactions only when an EA executes the project, but does not operate the facilities; (ii) for the relevant activities of the EA, including project transactions, when an agency executes the project and operates the resultant facilities, particularly if ADB financing is used to meet incremental current expenditures of ongoing operations, and (iii) for the relevant activities of the EA, including project transactions, when it finances improvements in the financial management of that agency.

5.3.10.7. Financial reports for a non-revenue-earning project preferably should contain, to the extent possible, data constructed and presented in a similar manner and form as for revenue-earning projects. This latter form of reporting is designed to yield maximum information for management and ADB. However, as a minimum, these reports may comprise Statements of Income and Expenses, or Statements of Cash Receipts and Cash Payments only. Staff should request borrowers to incorporate simple adjustments (e.g., to convert the latter financial reports to an accruals basis, in order to disclose the treatment of past and current obligations), if such adjustments are necessary for good management and reporting. The income or receipts shown in these minimum form statements should disclose the sources of funds, including local funds, ADB loan disbursement proceeds and cofinanciers fund disbursements, where appropriate.

5.3.10.8. In a non-revenue-earning project that includes the financing of incremental current expenditures, e.g., salaries, wages, the financial reports should include separate statements of these expenditures and any related recurrent income of the EA. These statements should include annual budgetary provisions and allotments; supplementary budget provisions and allotments; and actual expenditures under each budget head and subhead. The budget heads and subheads of expenditures for which ADB financing is furnished and the actual expenditures and amounts of ADB disbursements claimed should be indicated. In this respect, it is important during project preparation to ensure that adequate budgetary descriptions and line items are, or will be, made available to fulfill this analysis.

5.3.10.9. Details of the financial position, at the start and end of each fiscal year, of a non-revenue-earning project or EA should be requested from the borrower. These details may be best provided in a form of balance sheet, at the opening and closing of each fiscal year, to show the accumulated totals of transactions over the project period

and to account for assets, inventories, equity (or grants) and loans provided as part of the project.

5.3.10.10. Balance sheet preparation need not be an elaborate process. Its preparation can take the form of an accumulation of data from income statements for completed years, with adjustments to show closing balances of inventories and cash, where appropriate. However, some government departments may not be experienced in preparing and maintaining data for balance sheets. In such cases, during project preparation, the analyst should ask the government to arrange for the training of staff prior to loan negotiations and project start-up. Otherwise, engagement of competent personnel, including a fulltime financial management expert and a project accountant to prepare the financial reports in the required form and on a timely basis, should be provided.

5.3.11. Examples of Model Financial Statements

5.3.11.1. The Knowledge Management section of these Guidelines provides examples of model financial statements for revenue-earning and non-revenue-earning projects. Furthermore, a set of model financial statements, which are cross-referenced to IAS requirements, together with a disclosure checklist is provided at www.iasplus.com.²⁰

5.4. Auditing Standards and Auditor Engagement

5.4.1. Introduction

5.4.1.1. An audit's overall objective is for the auditor to express an opinion as to whether the financial statements present a true and fair view of the project(s) and, where applicable, of the EA, or are similarly presented fairly in all material respects, in conformity with IAS or other standards acceptable to ADB, and applied on a basis consistent with that of the preceding year.²¹

5.4.1.2. The auditor's opinion is necessary to establish the credibility, or otherwise, of the financial statements of an EA. The examination should be of such scope and depth to allow the auditor to give an opinion and make a report on the veracity, accuracy and fairness as regards the presentation of the financial statements of an EA or a defined part thereof (such as a project, a project unit, or a department or division). These financial statements may be annual, periodic, or ad hoc (i.e., relating to special reports).

²⁰ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

²¹ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

5.4.1.3. The auditor's examination should include an evaluation of the systems and operating procedures for accounting, custody of assets, the control environment and internal financial control, financial reporting and related systems. An analysis of explanations submitted to the auditor, and all information necessary to support the auditor's opinion and to construct the report of the auditor, should be provided.

5.4.1.4. Financial analysts, however, cannot assume that the auditor's opinion is an assurance as to the future viability of an entity or as to the efficiency or effectiveness with which management has conducted the affairs of the entity.

5.4.1.5. During project identification and preparation, analysts should become familiar with the existing laws, regulations and rules of the country and the EA that govern financial reporting and auditing requirements. It is essential to identify incompatibilities between ADB and local legal requirements for auditing and to resolve these before appraisal.

5.4.2. ADB Requirements

5.4.2.1. ADB requires the borrower and the project EA to have the required financial statements for each year audited by an independent auditor acceptable to ADB, and in accordance with standards on auditing that also are acceptable to ADB. An audit of such financial statements includes: (i) an assessment of the adequacy of accounting and internal control systems with respect to project expenditures and other financial transactions, and to ensure safe custody of project financed assets; (ii) a determination as to whether the borrower and project implementing entities have maintained adequate documentation on all relevant transactions; (iii) confirmation that expenditures submitted to ADB are eligible for financing and identification of any ineligible expenditures; and (iv) compliance with loan covenants and ADB's requirements for project management.

5.4.2.2. ADB recognizes ISAs, promulgated by IFAC and the auditing standards of the International Organization of Supreme Audit Institutions (INTOSAI). ISAs are widely adopted by the international accounting profession and many national professions. They form the benchmark for standards on auditing acceptable to ADB for audits in the public and private sector. Many Auditors-General and their equivalents use INTOSAI auditing standards.

5.4.2.3. ADB prefers that auditors conform to ISAs, but recognizes that in some countries auditors are expected to apply generally accepted auditing standards which may not conform to these Guidelines but that have been prescribed by a country's law, or that have been adopted by public accountants or associations of public accountants in the country concerned.²²

²² Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

5.4.2.4. Supplementary auditing and reporting procedures may be requested by ADB, if necessary, to confirm accountability and financial performance in cases where ADB considers local standards need to be supplemented. In addition, ADB would expect auditors to indicate in their report the extent of differences, and the impact on the audit, of use of local auditing standards compared to the application of ISAs.

5.4.3. Auditing Procedures

5.4.3.1. The audit is intended to provide an ex post review of the EA's financial statements, financial systems, records, transactions, and operations, performed by professional accountants. It is intended to provide assurances of accountability, give credibility to the financial statements and other management reports, identify weaknesses in internal controls and financial systems, and make recommendations for improvements.

5.4.3.2. The auditor should obtain an understanding of the project and the entity being audited, including the contents of the RRP, legal agreements, and these Guidelines. In addition the following guidance is available from the: (i) ADB Loan Disbursements Handbook; (ii) ADB Sample bidding documents for competitive bidding under international competitive bidding procedures; and (iii) ADB Procurement Handbook.

5.4.3.3. The extent of an auditor's review of the accounting records depends on the systems of accounts and of internal checks and controls used by the entity being examined. As an example, an auditor will need to examine, and where necessary, test: (i) the organizational procedures for making financial decisions, budgeting and authorizing expenditures; (ii) the design, management, and operation of the accounting system; (iii) the effectiveness of related systems and procedures such as inventory control and data processing; (iv) the efficiency of the systems of internal control and of internal audit; (v) all financial transactions, and verify year end balances, including an appropriate degree of physical verification; (vi) compliance with IASs and any other applicable accounting standards, including the adequacy of disclosures; (vii) subsequent events and their possible effect on the financial statements; (viii) overall comparators of actual costs and achievements against budgets and planned indicators, obtaining and reporting adequate explanations for significant variations; (ix) test compliance with loan covenants and ADB's requirements for project management; and (x) the adequacy and competence of accounting staff. In the light of their findings, auditors should normally test the financial transactions of the organization against such documentary or other evidence as maybe necessary to enable them to be satisfied as to the authenticity and correctness of the transactions, their complete and proper entry in the books of account, and their effect on financial performance and status.

5.4.3.4. The timeliness and accuracy of the recording of assets and liabilities and of the methods of their valuation should be reviewed by the auditors, particularly for projects executed by government departments, for which asset recording typically is not a routine requirement. In addition they should be satisfied as to the methods of regularly determining their existence, ownership and appropriate valuation, including, where necessary, physical inspection by the auditor. Examples of items to be addressed include: (i) land, buildings, machinery, and equipment, including methods of provision for depreciation, if such provision is applicable to the accounting procedures for the project or EA under audit; (ii) inventories, including appropriate accounting for obsolescence, spoilage, or losses; (iii) receivables, including provisions for bad and doubtful debts; (iv) cash and bank balances; (v) investments; (vi) amounts due to third parties (long-term and short-term loans and suppliers' accounts payable); and (vii) insurance coverage, particularly of project components.

5.4.3.5. Where appropriate, an auditor should examine such items as capital commitments and treatment of contingent liabilities, the effects of currency devaluation or revaluation on foreign currency transactions, and events occurring after the date of preparation of the balance sheet.

5.4.3.6. Circumstances beyond the control of an auditor and the EA may sometimes make it impossible to carry out all preferred auditing procedures, at least in full; in such cases, auditors should satisfy themselves by alternative procedures that are practicable and reasonable in the circumstances. However, there are two important auditing procedures which should be carried out: (i) direct correspondence with debtors and creditors on a substantial test basis by an auditor, to confirm sums due to, and payable by, the EA under audit; and (ii) observation by the auditor of physical inventory taken by the client. Specific disclosure should be made of the reasons for noncompliance in cases where these procedures are not carried out, and whether satisfactory alternative procedures were employed.

5.4.3.7. Any country-specific variations in accounting standards and practices that are adopted by the borrower, and are known by the auditor to differ substantially from IAS, should be disclosed. Any significant effects on the financial performance or status of the project, as a result of not conforming to IASs, should be disclosed.²³ Examples of such variations and their effects on reported financial results that should be disclosed are any overstatements of assets and understatements of liabilities that may be sanctioned by local laws; accounting on a cash basis or on a basis other than historical costs; recognition and equalization of income over several accounting periods; omission of certain gains or losses in determination of net income; the use of "reserve" accounting

²³ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

when full details of movements in, and realized profits on, reserves may not be revealed; and the treatment of foreign exchange profits or losses in a manner that does not disclose their impact.

5.4.3.8. The auditor should review the periodic PMR for each year and compare them with the financial statements of the fiscal year. ADB requires the auditor to report any differences, particularly any ineligible expenditure against which ADB may have disbursed, recommending actions necessary to avoid recurrences.

5.4.3.9. The audit of SOEs (where required) should be included as a part of the overall audit of the project. However, ADB requires that particular attention be paid to the internal control systems and the verification of documents relating to SOE expenditures, not only to ascertain proper financial accountability, but also that expenditures are eligible for inclusion in the project. ADB requires a special reference in the auditor's opinion with respect to the SOE portion of the audit.

5.4.3.10. ADB also requires an audit of the Imprest Accounts, which may be separate, or included as a part of the overall audit of the project. This audit is limited to the transactions of the Imprest Accounts, as the audit of the expenditures reimbursed or paid directly from the Imprest Accounts are to be audited as a part of the project audit, with appropriate review of the in-transit items. Where the audits of the Imprest Accounts are self-standing, a special purpose audit opinion is required. Where the audit forms a part of that of the project, a separate reference to the Imprest Account audit should be included in the auditor's opinion.

5.4.4. Auditor Selection and Appointment

5.4.4.1. Legal and professional requirements will normally determine the scope and depth of an audit examination, but these may also be supplemented by client instructions in the form of a Terms of Reference. These instructions would usually extend an audit's scope and detail, but they may restrict an auditor's activities rendering them unacceptable. Care should be taken when framing a request for additional work from an auditor.

5.4.4.2. Borrowers should be asked to remove unacceptable restrictions, or otherwise arrange for an acceptable audit to be carried out. A borrower is responsible for the selection, appointment and performance of an auditor. ADB wishes to be informed by a borrower of an ongoing or proposed appointment of an auditor, who should meet the required standards in terms of independence, experience and competence. More specifically, ADB should indicate the acceptability of an auditor in the form of a "no objection" provided that actual or proposed auditors satisfy the following criteria:

- They must be impartial and independent of the management of the entity to be audited, and of the person appointing them. In particular, the auditors should not otherwise be employed by, serve as directors for, or have any financial or close business relationship with the entity during the period covered by the audit.
- They must be well-established and reputable using procedures and methods that conform to ISAs or INTOSAI auditing standards, and employ adequate staff with the skills and competence required for their responsibilities.
- They must be able to demonstrate experience in auditing the accounts of projects or entities comparable in nature, size, and complexity to the assignments they are to undertake (specialized auditing experience, obtainable only from external sources, may be necessary for some projects).
- The audit work should be assigned to personnel who have the professional and technical training and proficiency required in the circumstances.

5.4.4.3. ADB requires that the borrower and the project implementing entity select and appoint an auditor acceptable to ADB within sufficient time to carry out its responsibilities, including a review of the financial management systems at the beginning of project implementation, and periodically thereafter.

5.4.4.4. ADB does not normally advise on the selection of auditors, but prefers to review a list of several auditors submitted from whom an appointment will be made by the borrower, and indicating any auditor who may not meet ADB's criteria. ADB will indicate its agreement to a proposal to engage an auditor when it is satisfied that an existing auditor, or the auditor under consideration for engagement, would be acceptable to ADB in terms of independence and competence to carry out the audit.

5.4.4.5. Many prospective borrowers and EAs have ongoing audit arrangements. In other cases, borrowers initiate audit engagements at the start of a project. Whenever an auditor is to be appointed by a borrower, or the auditor is a statutory appointee, ADB may seek information in order to be satisfied regarding independence and experience of the proposed auditor. To ascertain acceptability, ADB routinely seeks information in order to be satisfied on the independence and competence of the proposed auditor. The required information includes: (i) the name of the auditor; (ii) the names, qualifications, and experience of the principals and managers; (iii) the approximate number of professional staff employed; (iv) a listing of some of the main audits currently and previously carried out by the auditor; and (v) a statement of the independence of the firm of auditors vis-à-vis the entity it is proposed to audit.

5.4.5. Issues in Auditor Selection

5.4.5.1. The scope and detail of an audit may also depend upon laws or regulations that may constrain a government auditor from providing the depth of examination required by ADB. For example, the following are unlikely to be acceptable auditors for ADB lending operations: (i) a government auditor whose staff may be required by laws or regulations to participate in the processing of financial transactions; (ii) an auditor who acts for an EA for the preparation of annual financial statements; or (iii) an auditor who designs and constructs components of the EA's financial management system. In each case, the financial analyst must thoroughly review the circumstances and have adequate support, if necessary, by seeking an independent opinion, for the exclusion of the proposed auditor from doing the auditing assignment.

5.4.5.2. In certain instances, staff constraints may cause the borrower and PIU to request an auditor to compile part or all of the annual or supplementary financial statements. Where this is necessary, to be eligible to carry out the audit, the auditor should play no part in any aspect of the decision making and/or management of the entity concerned, including maintaining and finalizing accounting and financial reporting preparation services for the current year of audit and at least the most recent preceding fiscal year of the project. The extent of the auditor's involvement in accounting should be discussed in the Management Letter.

5.4.5.3. It is essential that auditors are able to commence work at project start-up, and thereafter sufficiently early in each fiscal year to complete the audit expeditiously after the year-end; for example, the checking of stocks and balances at critical times in a year may require the presence of an auditor if a qualified report is to be avoided. Therefore, an auditor should be appointed by the borrower before the beginning of each fiscal year. The borrower will be expected to provide ADB with an assurance that the initial auditor has been notified of ADB's requirements, including the timing of the audit and issuance of the auditor's report. In all cases, this will not be later than the starting date of the project or the date of the ADB's Board approval to the loan, whichever is the earlier. Financial analysts are also encouraged to meet with the auditor at the first opportunity following their appointment.

5.4.5.4. Where a government auditor is to serve during execution and operation of a revenue-earning project until the loan period expires, the borrower will be expected to provide ADB with an assurance that the government auditor will begin and complete the audit operations within the timetable required. This timely appointment allows the auditor to carry out interim audits, therefore reducing their work at the year-end to facilitate timely reporting. Also, it allows the earlier identification of possible errors and frauds and enables quicker corrective actions where required.

5.4.6. Selecting Auditors

5.4.6.1. Auditors for public sector projects and public sector EAs may be drawn from commercial or state audit practitioners. Government auditors will not be acceptable for private sector projects and for public sector EAs of revenue-earning entities, unless confirmed by ADB when a review of capacity, capability, and ongoing performance has been conducted.

5.4.6.2. The EA, or its controlling authority is normally responsible for this selection and appointment, except in cases where a government auditor is required by law to provide the service. Therefore, where no auditor is currently engaged, steps should be taken during project preparation to ensure that the borrower will engage an auditor acceptable to ADB by the date of loan signing or start up of the project.

5.4.6.3. Where an auditor is currently engaged, staff should ensure that they carefully review the past performances of the auditor with respect to the quality of reports and opinions, and management letters. If the capabilities and capacity of the auditor to perform to ADB-required standards would be questioned by the appraisal mission, the borrower/EA should be advised as to the possible deficiencies, and should be asked to convey these concerns to the auditor.

5.4.6.4. In cases where the auditor fails to respond to the concerns raised or the auditor is clearly unacceptable to ADB, the borrower/EA should be advised that another auditor be selected prior to loan signing.

5.4.6.5. When private or commercial auditors are to be used, staff may, if requested, assist borrowers to review the qualifications and experience of an auditor. For this purpose, in order to form a judgment on their competence, it may be necessary to visit the local offices of the auditors and request samples of their previous or ongoing work, including typical audit reports prepared by them.

5.4.6.6. Examination of data on auditors submitted to ADB prior to their engagement by a borrower should include the ability and track record of an auditor to meet the requirements set out in the *Handbook for Borrowers on the Financial Management of Investment Projects Financed by the ADB*. Borrowers should be notified on the auditors who do not meet these criteria.

5.4.6.7. An auditor's engagement should be kept under review to ensure consistent quality of performance, including ability to adapt to changes in an entity's accounting and general operations, and to adopt improved audit techniques. For example, development of computerized accounting would require complex and expensive auditing

techniques. Auditors inexperienced in this field may not be able to provide these services, or may be constrained from appropriate expansion of services by an inadequate audit fee. In such cases, inclusion of audit costs in the project costs would be appropriate.

5.4.6.8. Borrowers should therefore be encouraged to restrict audit engagements to relatively short-term assignments.

5.4.6.9. It is common practice in some countries to appoint the auditor each year. However, engagements should normally be long enough to enable an auditor to become familiar with the project or EA under audit and to permit efficient operation, but short enough to facilitate a change of auditor, if necessary. Engagements of three to five years are in the optimum range.

5.4.7. Terms of Reference for an Auditor

5.4.7.1. ADB requires that the auditor's opinion be of such scope and detail as ADB may reasonably request, and requires that a Terms of Reference (TOR) acceptable to ADB be prepared for each audit. For different types of audits, the scope of the audit will vary according to the nature of the implementing organization and type of operation being audited. For example, the TOR for the audit of a Financial Institution will require the auditor to pay particular attention to the loan portfolio, while the area of greatest emphasis for auditing of a public utility may be the accounting of its fixed assets and its accounts receivable.

5.4.7.2. ISAs suggest that the auditor determine the scope of the audit of financial statements in accordance with the requirements of legislation, regulations, and generally accepted auditing standards. The TOR must not restrict the auditor's obligations with respect to the above. The auditor should not be allowed to claim in the event of poor performance that the TOR prevented performance with respect to statutory, regulatory or professional requirements.

5.4.7.3. However, the TOR provides the opportunity for drawing special attention to areas of concern that may not be covered or emphasized under a normal audit, such as compliance with loan covenants; for example, a special review of procurement documents. The TOR should always include in the scope of the audit the requirement to give an opinion on any specific items. A Management Letter will always be required.

Appointing an Auditor – Using the Model Terms of Reference

5.4.7.4. The Knowledge Management section of these Guidelines provides a Model TOR for an auditor.

5.4.7.5. Whenever ADB wishes to approve the TOR of an auditor to be engaged by a borrower or a project entity, it is preferable that staff should remain independent of the drafting thereof. Staff will hence be free to advise on the documentation prepared by a borrower or EA. There is no objection, however, to staff giving borrowers advice based on the model TOR.

5.4.7.6. The model should not be regarded as universally applicable to audits of ADB projects or project entities. Staff should select those components they consider appropriate for a particular audit engagement, omit inappropriate items and add relevant matters that are not in the model to develop a working draft.

5.4.7.7. This model relates only to the appointment of auditors to carry out an audit, as defined in these Guidelines. The model is not intended for the appointment of accountants for other forms of investigation, assessment, design or installation of accounting or internal auditing systems.

5.4.7.8. The drafting of these TOR should not restrict an auditor's obligations with respect to legislation, regulations, and generally accepted auditing standards, nor give reasons for an auditor to claim that adherence to the TOR prevented adequate statutory, regulatory or professional performance.

5.4.8. Contract or Engagement Letter of Auditor

5.4.8.1. The use of a Contract or Audit Engagement Letter is recommended. Where a formal contract is used, it is normally prepared by the PIU. A simple engagement letter is frequently used, often prepared by the auditor. The contract or letter sets out the responsibilities of the auditor and should include, but not be limited to:

- Confirmation of acceptance of the appointment including reference to the TOR
- The borrowers' responsibilities, particularly the preparation of financial information (the financial statements)
- The provision of access to whatever premises, records, documentation (including Staff RRP, legal agreements, etc.) and any other information the auditor may request in connection with the audit.
- The form of audit reports
- Arrangements regarding the involvement of internal auditors and of any other external auditors (such as the government auditor)
- The expected date of issuance of the audited financial statements, etc
- The basis on which fees are computed and any billing arrangements

5.4.9. International Standards on Auditing (ISAs)

5.4.9.1. The International Auditing Practices Committee (IAPC) of IFAC promulgates ISAs and International Auditing Practice Statements (IAPSs). The latter offer advice and guidance on the practical application of ISAs.

5.4.9.2. ADB expects auditors to conform to the ISAs and related auditing practices recommended in the IAPS. However, in some countries, the auditing profession may be required to comply with generally accepted local auditing standards prescribed either by law or by the national body of accountants.

5.4.9.3. Auditors when compiling their opinions and reports, often use the term “generally accepted auditing standards”. These standards differ from country to country, but are intended by the accounting profession to imply the highest standards of auditing practice. These standards are likely to be those adopted by professional accountants or associations of accountants, or standards prescribed by law, governments or bodies responsible for regulating national financial reporting.

5.4.9.4. Although ISAs and IAPSs are widely recognized, it should not be assumed that these have been adopted by national accounting professions or governments, and are therefore automatically applicable to audits and auditors of project entities. Local standards may not conform partially or completely with international guidelines.

5.4.9.5. Therefore at project identification, or during project preparation, analysts are required to accurately determine the auditing standards that will be applied by an auditor of annual financial statements of a borrower. If these do not correspond to ISAs and IAPS, the analyst must determine the extent and impact of variances in application of the local standards.

5.4.9.6. In the event that the impact of variances is sufficient to give rise to concerns for the adequacy and veracity of an audit, the analyst must request the EA to have the auditor adopt ISAs and IAPS for the audit of the ADB-financed project and the project entity. Where applicable, an auditor who would adopt ISAs and IAPS may be engaged.²⁴

5.4.9.7. Failure by an EA to meet such requests must be reported in the Aide Memoire and the fact-finding BTOR. If agreement is not obtained by project appraisal, an Issues Paper should be prepared so that management can give guidance. The BTOR and the RRP should include confirmations of the acceptable auditing standards that will be used.

²⁴ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

5.4.9.8. Where necessary, the EA should also be requested to ensure that auditors be required by their terms of reference to indicate in their opinions and report, the extent of any differences, and the impact on the audit, by their use of local auditing (or other) standards compared to the use of the ISAs.²⁵ For an example, see box that follows.

Auditing in an EDP Environment

International Standard on Auditing – Auditing in an EDP Environment – requires possession of certain levels of skills and competence with regard to computing hardware and software by the auditor, and of those who they are supervising.

The TOR for an auditor should specifically call for a statement of the auditor's skills and competence in this field, and the report by the auditor should contain a statement indicating the extent to which they were able, or could not meet the requirements of this Guideline, and the impact on the audit of any deficiency on their part.

Such a requirement is relatively simple to check. In EAs which have computing facilities, if the auditor fails to confirm that they were able to comply with this Guideline, or to make any meaningful statement as to the capability and quality of their audit of information compiled by computing facilities in the agency, it must be questionable whether the audit report and opinion offered could be acceptable to ADB.

5.4.10. Government Auditors

5.4.10.1. In some countries where projects are to be executed by government controlled/sponsored entities, statutory requirements may specify the use of the government auditor. Under such circumstances, ADB will continue to require that the auditor is independent and competent; that the auditor has the capacity and professional capability to provide audit reports and opinions of the quality required by ADB, and is generally acceptable to ADB. Normally, the independence of a government auditor would not be questioned if the auditor's position is established under constitutional or legal provisions designed to assure independence (e.g., by reporting directly to a legislature).

5.4.10.2. In circumstances where the government auditor is acceptable, but the auditor's report will be placed before a governing national assembly for approval (e.g., a Parliament), the borrower should provide ADB a draft of the report, certified by the Chief Financial Officer and the auditor, immediately on completion of the audit. As specified in the loan agreement, the approved version of the auditor's report should be submitted to ADB as soon as this becomes available.

²⁵ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

5.4.10.3. Circumstances exist where government auditors are involved directly or indirectly in pre-expenditure and revenue collection decision-making – a status that compromises their independence. ADB then may seek to agree with a borrower either that auditor, or that ADB, will be provided with opinions and reports prepared by an independent private or commercial auditor in addition to the report of a government auditor. A government auditor who does not control, and is not under the control of the department or agency of government to be audited, and who is not involved in any aspects of its management, may in some instances be considered as independent.

5.4.10.4. Where ADB has doubts with respect to the auditor's independence and/or competence, ADB will seek an agreement with the borrower to have the government auditor subcontract the audit to an independent and competent private auditor to carry out the audit on their behalf. In appropriate circumstance, ADB could include this expenditure in the loan. In general, ADB requires that private auditors, using their experience in the use of ISAs, carry out the audit of a commercial or revenue-earning entity.

5.5. Reviewing Financial Reports

5.5.1. Introduction

5.5.1.1. Project Administrative Instruction (PAI 5.09) sets out ADB's requirements for the delivery of audited annual financial statements of projects and EAs, including the monitoring requirements by ADB staff. PAI 5.09 also contains the remedial actions that ADB will undertake in the event of noncompliance with loan covenants relating to financial reporting and auditing.

5.5.2. The Review Process: Late or Unacceptable Financial Reports

5.5.2.1. The Project Officer responsible for a particular project's implementation should ensure that all requirements on progress reporting are prepared in a timely manner acceptable to ADB. The Project Officer is responsible for maintaining records on the schedule of the date of submission of progress reports (and annual financial reports, auditor's reports and completion reports), the actual date of receipt by ADB, and date of completion of review.

5.5.2.2. The Project Administration Unit may have installed a computerized monitoring system for recording the receipt of covenanted audited and unaudited project accounts and financial statements. The Financial Analyst or Financial Management

Specialist should in all cases review the interim or annual financial reports of the project, with or without auditors' reports and opinions.

5.5.2.3. The report should cover separately the submission of (i) unaudited and audited project accounts and, where applicable, (ii) the unaudited and audited financial statements of EAs. Where loan documents require submission of unaudited and audited financial statements beyond the closing date of the loan, the monitoring of submission of financial statements and compliance with financial performance covenants should continue.

Remedial Actions Under PAI 5.09

When APA/CFS are not received by due dates, regional divisions are to write immediately to EAs stating they are overdue and if they are not received within six months, imprest accounts will not be replenished and further reimbursement requests, commitment letters, and contract awards will not be processed.

When APA/CFS are not received within six months after the due dates, regional divisions initiate stopping replenishment of imprest accounts, and processing of reimbursement requests, commitment letters, and contract awards. Regional divisions then advise the EAs of ADB's actions and state if the situation does not improve within six months, loans may be suspended.

When APA/CFS are not received within twelve months after the due dates, regional divisions must determine, by consulting with COPP and CTDO if the loan should be suspended. The regional division will recommend loan suspension to Management.

Delays in submission of APA/CFS will directly impact the overall Implementation Progress [IP] rating of the project.

5.5.2.4. Within four weeks of the receipt from the Project Officer of the unaudited and audited annual financial statements relating to a project and, where applicable, to an EA, the concerned financial analyst should review the financial statements in consultation with the relevant project staff. The Financial Analyst or Financial Management Specialist will provide a memo to the Project Officer, copied to the director and manager of the regional department/division, on (i) the financial status of the project and, where applicable, the EA and (ii) the compliance with all of ADB's financial and audit covenants. The status of compliance upon receipt of financial statements, and during the review period, shall be assumed to be COMPLIED and ACCEPTABLE until the final result of review, which is within four weeks after the receipt of the document (PAI 5.09).

5.5.2.5. On the basis of this review, notice should be sent to the borrower and EA acknowledging receipt of the financial statements (and, where applicable, the Audit Report)

and to point out any violation of the loan's financial and audit covenants. Remedial action to be taken within a reasonable time will be required from the borrower and EA.

5.5.2.6. The Operations Coordination Division, the Manager COPP, and the Assistant Controller, CTDO are informed of the review results only if: (i) the audited annual financial statements are unacceptable; (ii) the auditor's report contains significant findings that would affect loan proceeds and implementation of the overall project (or other accountability issues); or (iii) the auditor's report contains any findings on the imprest accounts and statements of expenditures.

5.5.2.7. A financial analyst should report downward compliance trends with financial or audit covenants to the Project Officer, which may ultimately result in noncompliance, when a time-bound remedial action plan would be needed.

5.5.2.8. Receipt of a response to a request for a time-bound plan of action should be closely monitored and if the response is not received within the specified time, the lack of a response must be noted as an issue to be addressed under the loan.

5.5.2.9. A decision by a financial analyst (or a Project Officer) not to recommend a time-bound remedial action plan should be made in writing, reviewed, and if appropriate, endorsed by the concerned regional department.

5.5.3. Compliance With Financial Performance Covenants

5.5.3.1. The majority, if not all, financial performance covenants for a project include the clause "except as ADB shall otherwise agree." The exercise of the prerogative to "otherwise agree" rests exclusively with management.

5.5.3.2. In cases where noncompliance exists with a financial performance covenant, the regional department should analyze the adequacy of the proposed actions to be taken by the borrower and EA while assessing the probability of their being successfully implemented within the period specified.

5.5.3.3. The Project Officer should write a memo through the Operations Coordination Division outlining the review and conclusions. Recommendations on whether management should agree to a deviation from the covenant (including minor technical deviations), or such other actions as the regional department may propose, are put forward. The regional department should communicate its decision to the borrower and EA.

5.5.3.4. The memo should also specify whether the current auditor is acceptable to ADB or whether ADB should ask for a replacement.

5.5.4. Communication with Government Auditors

5.5.4.1. Communications requesting submission of audited financial statements should be addressed to the EA and/or the borrower. However, in some cases, compliance with the submission of audited accounts is delayed by difficulties encountered in the government audit office. When delays are attributable thereto, it is likely that similar problems are being experienced by other divisions/departments.

5.5.4.2. PAI 5.09 – *Submission of APAs and FSs* – sets out the procedures for ensuring that APAs and CFSs are submitted by the agreed due date. PAI 5.09 also stipulates the actions to be taken when APAs and CFSs are not provided as agreed. While PAI 5.09 requires that regional divisions are responsible for communicating with EAs, with regards to government auditors, in the interests of avoiding the duplication of efforts and the possibility of inconsistencies in ADB's position, it is desirable to coordinate all communication with government auditors through the Operations Coordination Division. Assistance from the Disbursement Operations Division in following up submission of audited accounts may be sought by the concerned Project Officer/Regional Division.

5.6. Reviewing Auditors' Reports

5.6.1. Introduction

5.6.1.1. ADB requires the borrower and the project EA to have the required financial statements for each year audited by an independent auditor acceptable to ADB, and in accordance with standards on auditing that also are acceptable to ADB. An audit of such financial statements includes:

- An assessment of the adequacy of accounting and internal control systems with respect to project expenditures and other financial transactions, and to ensure safe custody of project financed assets.
- A determination as to whether the borrower and project implementing entities have maintained adequate documentation on all relevant transactions.
- Confirmation that expenditures submitted to ADB are eligible for financing and identification of any ineligible expenditures.
- Compliance with loan covenants and ADB's requirements for project management.

5.6.1.2. The examination of the annual financial statements of EAs is an important feature of project supervision and should be conducted in the same way as financial appraisal. Additional attention, however, should be given to actual performance against appraisal forecasts, compliance with financial covenants and review mission financial

reports. Interim reports and unaudited annual financial statements may be the only up-to-date monitoring documents available on project progress, and their accuracy should be tested both during review missions and against audited annual financial statements. It is reasonable to expect that there should be no change between unaudited and audited financial statements.

5.6.1.3. It is useful to gain experience with individual EAs to identify those where ADB staff can reasonably depend on unaudited annual financial statements, and later to examine audited statements for exceptions. Before beginning this latter examination for a completed fiscal year, however, a review of the auditor's opinion on the statements is essential to ensure that the published results are likely to be valid.

5.6.1.4. The auditor's reports may not contain enough essential information for ADB to be able to rely on the data in the statements and thereby evaluate performance. Three principal features should be addressed when examining an auditor's report: (i) authenticity, form and timeliness of the report; (ii) quality, or tenor, of the opinion; and (iii) scope, significant accounting policies, auditing practices, qualifications, and other matters addressed by the auditor.

5.6.1.5. The wide sectoral coverage of ADB projects precludes giving advice for examining the opinions for each type of project. For general guidance, a checklist of matters that a reviewer of an auditor's report should consider is provided in the Knowledge Management section of these Guidelines (its application is discussed further in section 5.6.11). The checklist is not universally appropriate and staff will need to draw their own conclusions about its applicability to each project and related audit reports. While extensive, the checklist is not exhaustive and reviewers must exercise their own skills and common sense in deciding the adequacy of the completed audit. Similarly, reviewers should decide whether the auditor, in the manner of framing comments, is trying to convey a message of concern, which may be difficult to express explicitly.

5.6.1.6. If there are any "no" answers on the checklist, especially in areas of key concern to the project, then clarifications of the auditor's report should be sought from the borrower and/or the EA unless the audit itself is under development by use of technical assistance. If the omissions are serious and/or the quality of the report unacceptable, the matter should be discussed with the Operations Coordination Division and the Office of the General Counsel.

5.6.1.7. The borrower and/or the entity should be advised that the audit does not conform to standards and practices acceptable to ADB. The monitoring records should be annotated accordingly.

5.6.1.8. If a qualified opinion and report by an auditor is received, the materiality and extent of the qualification should be determined, particularly as regards accountability for project funds and the agency's financial position. In the case of substantial qualifications, the financial analyst should ascertain as soon as possible what remedial measures the borrower proposes to take.

5.6.1.9. If the borrower is unable or unwilling to take corrective action, staff should, after investigating the reasons, follow the course of action recommended in cases of noncompliance with covenants.

5.6.1.10. Qualifications which appear not to be of a material nature (limited inadequacies in accounting sub-systems, failure by accounting staff to respond to inquiries, etc.) should be followed up with the borrower by correspondence or during review missions, to ensure that appropriate corrective action is taken.

5.6.1.11. In the same way that accounting systems need to be designed and installed over a period of time, auditing capability often also needs gradual development. In such cases, loan agreements should refer to the form and timing of this process.

5.6.1.12. The analyst should participate in review work in a manner that fosters improvement of the auditor's work. Early audit reports that lack quality and depth of performance should not readily be rejected. Instead, the EA and the auditor should be informed in writing of possible deficiencies and encouraged to produce either an improved audit report, or to improve presentation of next year's financial statements. Under such circumstances, it is important that the financial management and accounting functions of the entities involved be carefully supervised, so as to compensate as far as possible for inferior auditing ability. The foregoing does not, however, preclude ADB from requesting the replacement of an auditor, particularly if training or other support is unlikely to achieve short-run improvements.

5.6.2. Auditors' Reports and Opinions

5.6.2.1. ISA 700 advises auditors in detail on the form and content of an auditor's report, and ADB would expect an auditor to closely follow this advice. In particular, paragraph 17 of ISA 700 addresses the Opinion Paragraph of an auditor's report as follows:

"The auditor's report should clearly state the auditor's opinion as to whether the financial statements give a true and fair view (or are presented fairly, in all material respects,) in accordance with the financial reporting framework and, where appropriate, whether the financial statements comply with statutory requirements".

5.6.2.2. An audit report must include: (i) title of the auditor; (ii) date of the report; (iii) addressee (EA and/or borrower); (iv) identification of the financial information audited; (v) a reference to auditing standards or practices followed; (vi) an expression of opinion, including a qualification; disclaimer or declining of an opinion, on the financial information; (vii) the auditor's signature; (viii) auditor's address; and (ix) date of signing of the report.

5.6.2.3. Section 5.6.3 provides examples of the body of typical auditor's reports and opinions for (i) an unqualified opinion for a non-revenue-earning project; and (ii) an unqualified opinion for a revenue-earning project. The auditor should appropriately restate each example when qualifications or other modifications are necessary.

5.6.2.4. Audited financial statements provided to ADB in accordance with a loan agreement should be accompanied by the report of the auditor that contains their opinion on the financial statements.

5.6.2.5. ADB prefers that auditors' report provide details on ADB's requirements, particularly with respect to receiving, among other requirements, an auditor's view on compliance with loan covenants and on ADB's requirements for project management.

5.6.2.6. The auditor should indicate whether any attached supplementary financial statements and Notes to the Financial Statements have been subjected to the same auditing procedures as in the case of the basic financial statements.

5.6.2.7. Additional matters may be addressed in a detailed auditor's report, where these are not addressed in the Management Letter. As examples: (i) implementation of the auditor's recommendations made in prior years; audit reports; (ii) efficacy of, and improvements required in budgetary control; (iii) reliability of field and financial controls; and (iv) any payroll, procurement, or inventory problems.

5.6.2.8. The auditor's opinion for a project should refer to the reporting format agreed between the borrower and ADB, noting the basis of accounting followed (e.g., cash basis).

5.6.2.9. The auditor's opinion for a revenue-earning entity, including a commercial type entity in the private sector, should refer to the accounting standards adopted and any significant departures from IASs (if any), with a reference to a quantified impact of such departures on the Balance Sheet and the Income Statement prepared by the EA in the Notes to the Financial Statements. An example of the above would be where government regulations legislate the basis for bad debt provision rather than relying on an actual assessment.²⁶

²⁶ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

5.6.3. Model Audit Opinions

5.6.3.1. *Model Audit Opinion for a Non-Revenue-Earning Project*

To: Borrower (or designated agency)

We have audited the accompanying financial statements (pages____ to ____) of the _____ Project financed under the Asian Development Bank Loan #_____ as of December 31, 20____, and for the year then ended.

These financial statements are the responsibility of the management of the _____ EA.

Our responsibility is to express an opinion on the accompanying statements based on our audit.

We conducted our examination in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of misstatement. Our audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audit also includes assessing the accounting principles and significant estimates made by management, as well as evaluating the overall statement presentation. We believe that our audit provides a reasonable basis for our opinion.

The ____ (EA's) policy is to prepare the accompanying statements in the format agreed between the Asian Development Bank and the Government of _____ as noted in the Minutes of Negotiations for the Loan, [on a cash receipts and disbursements basis in which cash is recognized when received and expenses are recognized when paid, rather than when incurred] / [on an accruals basis in which expenses are recognized when incurred and revenue is reported when income is due.]

In our opinion, (A) the aforementioned financial statements and appended notes that were also the subject of the audit, fairly present in all material respects the financial position of the _____ project as at _____20__ and the results of its operations for the year ended _____ 20__, in conformity with _____ accounting standards, applied on a basis consistent in all material respects with that of the previous year; (B) the [Borrower] [EA] has utilized all proceeds of the loan withdrawn from the Asian Development Bank only for purposes of the Project as agreed between the Asian Development Bank and [the Borrower] in accordance with the Loan Agreement; and no proceeds of the loan have been utilized for other purposes; and (C) the [Borrower] [EA] was in compliance as at the date of the balance sheet of the year of audit with all financial covenants of the Loan Agreement.

In addition:

- (a) (1) With respect to Statements of Expenditures, adequate supporting documentation has been maintained to support claims to the Asian Development Bank for reimbursements of expenditures incurred; and (2) which expenditures are eligible for financing under Loan Agreement No. _____.
 - (b) (1) The Imprest Accounts (page __) give a true and fair view of the receipts collected and payments made during the year ending ____ ; and (2) these receipts and payments support Imprest Account liquidations/replenishments during the year.
- [(a) and (b), above, are to be provided where the Loan Agreement requires separate Imprest Account and Statement of Expenditures audits and audit opinions.]

5.6.3.2. Model Audit Opinion for a Revenue Earning Project

To: Borrower (or designated agency)

“We have examined the Balance Sheet of _____ as of _____ 20__ , and the Income Statement, Cash Flow Statement and related statements and Notes (see pages ____ to ____ of our Report) of the _____ Project financed under the Asian Development Bank Loan # _____ as of December 31, 20__, and for the year then ended.

We conducted our examination in accordance with International Standards on Auditing [auditing standards of the country of _____].²⁷ Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of misstatement. Our audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audit also includes assessing the accounting principles and significant estimates made by management, as well as evaluating the overall statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, (A) the aforementioned financial statements and appended notes that were also the subject of the audit, fairly present separately (i) the financial position of the _____ project and (ii) the overall operations of the _____ [name of EA] as at _____ 20__ and the separate results of the project operations and the EA's operations for the year ended _____ 20__, in conformity with international accounting standards [accounting standards of the country of _____],²⁸ applied on a basis consistent in all material respects with that of the

²⁷ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

²⁸ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

previous year; (B) the [Borrower] [EA] has utilized all proceeds of the loan withdrawn from ADB only for purposes of the Project as agreed between the Asian Development Bank and [the Borrower] in accordance with the Loan Agreement; and no proceeds of the loan have been utilized for other purposes; and (C) the [Borrower] [EA] was in compliance as at the date of the balance sheet of the year of audit with all financial covenants of the Loan Agreement.

In addition:

- (a) (1) With respect to Statements of Expenditures, adequate supporting documentation has been maintained to support claims to the Asian Development Bank for reimbursements of expenditures incurred; and (2) which expenditures are eligible for financing under Loan Agreement No. _____.
(Required where an SOE audit is required under the Loan Agreement.)
 - (b) The Imprest Accounts (page____) gives a true and fair view of the receipts collected and payments made during the year ending _____.
- [(a) and (b) above to be provided where a separate Imprest Account audit is required under the Loan Agreement.]

5.6.4. Compliance with Loan Covenants

5.6.4.1. Borrowers and EAs enter into financial performance covenants with ADB. The auditor is required to confirm, or otherwise, compliance with each financial covenant contained in the legal documents for the project. The auditor should also indicate, where present, the extent of any noncompliance, by reference to the specified (required) and actual performance measurements for each financial covenant for the fiscal year concerned.

5.6.5. Compliance with ADB's Requirements

5.6.5.1. Borrowers and EAs enter into agreement with ADB in the loan documents to provide all appropriate financial management, accounting and financial reporting requirements necessary to support effective management of the project. The auditor should also indicate the extent of any noncompliance with the loan agreement, by reference to the specified (required by the loan documents) and actual performance of the borrower in respect of these requirements of ADB for the fiscal year concerned.

5.6.6. Types of Auditors' Opinion

5.6.6.1. An unqualified opinion indicates the auditor's satisfaction in all material respects with the following matters:

- The financial information has been prepared in accordance with (a) for a project - the reporting format agreed; and (b) for a revenue-earning entity - accounting standards and practices acceptable to ADB have been consistently applied.
- The financial information complies with relevant regulations and statutory requirements.
- The view presented by the financial information as a whole is consistent with the auditor's knowledge of the project/entity.
- There is adequate disclosure of all material matters relevant to the proper presentation of the financial information.
- Additional requirements that may have been requested in the TOR have been met.

5.6.6.2. When a qualified opinion, adverse opinion, or a disclaimer of opinion is given, the audit report should state in a clear and informative manner all of the reasons for such opinion. ISA provides guidance to auditors on the form and content of the auditor's report issued in connection with the independent audit of the financial statements of any organization.

5.6.6.3. A qualified opinion is issued when the auditor concludes that an unqualified opinion cannot be issued, but that the effect of any disagreement, uncertainty or limitation of scope of the audit is not so material as to require an adverse opinion or a disclaimer of opinion. The subject of the qualification and its financial effect must be clearly stated in the auditor's report.

5.6.6.4. An adverse opinion is issued when the possible effect of a disagreement is so pervasive and material to the financial statements that the auditor concludes that a qualification of the report is not adequate to disclose the misleading or incomplete nature of the financial statements.

5.6.6.5. A disclaimer of opinion is issued when the possible effect of a limitation on the scope of the audit or of an uncertainty is so significant that the auditor is unable to express an opinion on the financial statements.

5.6.7. Materiality

5.6.7.1. ISA 320 states among other things:

“Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size of the item of error judged in the particular circumstances of its omission or misstatement. Thus materiality provides a threshold or cut-off point, rather than being primarily qualitative characteristic which information must have if it is to be useful”

5.6.7.2. Some auditors (particularly government auditors) provide reports listing all mistakes, irrespective of their materiality. ADB requires a clear opinion. Thus irregularities and instances of noncompliance with government or institutional rules and regulations that do not give rise to a qualified or disclaimed opinion should not be subjects of the report of the auditor. Where an auditor has comments that are not material to the opinion, these should be set out in the Management Letter.

5.6.8. Use of Technical Experts

5.6.8.1. For certain types of expenditures to be financed from ADB loans/credits, the auditor may need to rely on an independent technical expert who normally would be engaged by the EA. An example would be civil works executed by the regular labor force of an entity (e.g., “force account” carried out by the Ministry of Works); or fixed-price reimbursements for measured units of work to be supervised by independent experts such as an engineering or architectural firm. In addition to the normal responsibility of such experts to check that the work is performed in accordance with the plans and specifications, an appropriate certification by the expert of the value of the work executed may be acceptable to ADB.

5.6.8.2. The acceptability of the certification would depend on the independence and competence of the firm and its staff engaged in the verification. Such a certification, where used, should normally be attached to the related documentation supporting the expenditure. Any dissatisfaction with the work of the expert that concerns the auditor should be stated in the auditor’s report.

5.6.8.3. The content of the certificate might cover matters such as whether the goods and services were procured, received, paid for and used in the project in conformity with the loan agreement. In the above instances, the auditor should include a note under the scope paragraph of the opinion, stating the extent and amount involved with respect to their reliance on the technical expert (who should be identified and expertise noted in the Notes to the Financial Statements prepared by the EA).

5.6.9. Statements of Expenditure (SOE) and Imprest Accounts

5.6.9.1. Where the legal agreement of a project requires the separate audit of the SOE and the Imprest Accounts, respectively, additional paragraphs should be included in the audit opinion of the project:

- referring to the SOE financial statement, certifying to the eligibility of those expenditures against which SOE disbursements were made; and
- referring to the Imprest Account financial statements attached.

5.6.10. Reviewing Audit Management Letters

5.6.10.1. The scope of the engagement as set out in the TOR should require the auditor to provide a Management Letter with reference to the EA. This is a report on the internal controls and operating procedures of the entity, covering all aspects included during the normal course of the audit. Because an auditor is unlikely to cover all activities of a client during an annual audit, the Management Letter may address only those specific matters that came to the attention of the auditor during the review.

5.6.10.2. The borrower and the auditor may agree at the commencement of the audit on particular subjects (including those at the request of ADB) to be included in the TOR and addressed in the Management Letter. These may include the review of compliance with financial covenants, and actual versus planned performance indicators. However, it should be the prerogative of the auditor to address any matter not agreed upon, but which, in the auditor's opinion, should be drawn to the borrower's attention. In addition, the auditor should comment on all significant variations between the PMR and the annual audited financial statements.

5.6.10.3. An auditor may use the Management Letter as a means of obtaining financial management and accounting systems and internal control improvements that would likely make the audit work easier and less time consuming to complete. An effective Management Letter, properly responded to by a client can reward the latter with a less expensive audit operation.

5.6.10.4. ADB wishes to review all Management Letters, and the project officer, financial analyst or Financial Management Specialist should ensure that copies are forwarded to ADB by the EA concerned at the same time as the audited annual financial statements are issued.

5.6.10.5. The Project Officer should ensure that a financial analyst or Financial Management Specialist reviews each Management Letter. The financial analyst should advise the Project Officer of any matters to which the auditor has drawn attention that may adversely affect the operation of the EA and project implementation.

5.6.11. Audit Report Questionnaire

5.6.11.1. The Audit Report Questionnaire that is provided in the Knowledge Management section of these Guidelines is provided only as an example of the nature and type of questions that should be considered when reviewing the report of an auditor. Financial analysts should have regard to the nature of the organization under audit and frame their questions accordingly.

5.6.11.2. Agencies operate in a wide range of sectors and activities, and therefore the form and nature of their financial statements will vary equally widely. Furthermore, approaches to, and the quality of auditing is variable. Therefore, the questions set out in the questionnaire should be regarded with some caution, because these may not have sufficient breadth or depth for some institutional statements and audits. Conversely, these may also be considered too extensive for some EAs, their activities and the audit services available.

5.6.11.3. Nevertheless, by using this questionnaire, or a suitably modified version thereof to reflect the nature and form of the EA concerned, a financial analyst should be able to obtain a reasonable view of the acceptability of the financial statements concerned and the audit thereof.

6. Financial Institutions (FIs)

6.1. FI Introduction and Overview

6.1.1. DMCs use financial institutions (FIs) to manage funds received from government, multilateral development banks (including ADB), other donors, and the financial markets. The FIs act as financial intermediaries in providing loans and equity contributions to public or private sector organizations in sectors, or subsectors, such as agriculture, industry, and small- or medium-scale enterprises.

6.1.2. FIs include commercial banks and other financial institutions. ADB loans to FIs may be referred to as FILs. ADB previously referred to FIs as Development Finance Institutions (DFIs). The World Bank and the African Development Bank refer to FIs as Financial Intermediaries. They are also known by sectoral titles, such as agricultural banks (AgDBs), industrial banks (IDBs) and housing development banks (HDBs), or as development financial intermediaries, microfinance institutions (MFIs) and microfinance intermediaries.

6.1.3. FIs are expected to generate an interest rate spread (the difference between lending and borrowing rates) that covers all operating costs, including provisions for bad and doubtful debts, and in appropriate circumstances provides a profit. ADB can support FI operations in both the public and the private sectors. In addition to this introduction, this part has five sections:

- | | | |
|-----|-----------------------------------|---|
| 6.2 | Reviewing FI Financial Management | This section describes specific issues to be considered when reviewing the financial management practices of FIs. These issues include the treatment of interest rate distortions, directed credit and subsidies. |
| 6.3 | FI Investments | This section describes ADB's approach to FI investments. It discusses selection of participating institutions and appraisal approaches. |
| 6.4 | Assessing FI Performance | This section describes considerations regarding, and approaches to, measuring the performance of FIs. In particular, it advises on applying the CAMEL framework and assessing FI risks. The section stresses that |

the performance measures recommended throughout other parts of these Guidelines are not necessarily applicable to FIs.

- | | | |
|-----|----------------------------------|---|
| 6.5 | FI Appraisal Checklist | A generic checklist is provided for appraising FIs. |
| 6.6 | FI Reporting and Auditing Issues | This section provides specific guidance on the reporting and auditing requirements for FIs. |

6.2. Reviewing FI Financial Management

6.2.1. General Operational Issues

6.2.1.1. State-owned FIs resemble their commercial cousins in that frequently they have been formed to address the needs of a particular community, or category of commerce or industry, or branch of human activities, such as lending very small sums to urban and rural poor through microfinance. Some state-owned FIs are very large, such as the Industrial Development Bank of India (IDBI) or the Agricultural Bank of China (ABC). Other state-owned FIs can be very small and are sometimes operated by volunteers under a manager seconded from a commercial bank. So, as there is no generic model, each FI must be identified and prepared for a project, and appraised as to its capabilities and capacities to deliver a proposed project.

6.2.1.2. The objective of reviewing FI operational performance is to assess its ability to: (i) deliver subloans to achieve defined country/sector economic objectives; (ii) efficiently recover subloans; and (iii) cover all operating costs and make a reasonable profit on the invested capital. FIs have numerous forms of performance indicators that can provide analysts with an understanding of past and ongoing performance.

6.2.1.3. Where an existing FI is the subject of a proposed project, or of a continuing ADB lending operation, the financial analyst (or investment officer) should begin by closely studying the FI's most recent annual financial statements and associated auditors' reports and opinions.

6.2.1.4. For an ongoing project, this review should be conducted against the objectives and recommended operational performance set out in the most recent RRP. After drawing conclusions as to past and current performance, the financial analyst (or investment officer) should discuss their findings in detail with the project officer and the FI

management and, if appropriate with the proposed or actual borrower, and an apex institution, (where participating). Every effort should be made to reach agreement on these initial findings; particularly on management deficiencies, system defects, and performance shortcomings or failures.

6.2.1.5. This first step is essential to ensure that the FI management understands and is likely to fully support the likely objectives of a proposed project, or revision of objectives (where necessary) for an ongoing project, as the ADB mission continues its work of preparing or supervising a project.

6.2.1.6. Full collaboration by FI management and their complete endorsement of a mission's proposals is critical for the investment's success. Any reservations by FI management or the borrower should be confirmed in the Aide Memoire and reported to the MRM.

6.2.1.7. It is particularly important to monitor the implementation and fulfillment of the stakeholders responsibilities, and the impact of their obligations on: (i) their respective national economies; (ii) performance of the institution as a borrower; (iii) national influences on regional operations (where present), and (iv) selected enterprises in representative regions of countries as subborrowers.

6.2.2. Policy Framework for FIs and FI Loans

6.2.2.1. The design and timing of FILs should take account of the prevailing and expected macroeconomic environment, including the exchange rate regime and international capital mobility, as well as conditions in real sectors. Given the critical importance of the macroeconomic and sectoral framework for financial sector sustainability and efficiency, ADB considers FILs only in the context of a satisfactory macroeconomic framework. Within this framework, ADB uses its lending and non-lending services to focus on improving the incentive environment for FIs.

6.2.2.2. ADB involvement in the financial sector of countries through FILs: (i) supports improvements in the incentives structure for market participants, including elimination of impediments to efficient resource mobilization and allocation; (ii) supports development of infrastructure, including creation and strengthening of sound and competitive financial institutions and markets, and improvements in financial and prudential regulations, banking supervision, and accounting and auditing standards; and (iii) aims to remove or substantially reduce subsidies, whether provided through interest rates, directed credit, institution-building grants, or otherwise. (Institution-building TA grants and other non-interest rate subsidies may be provided in a variety of ways, for example, as preferential income-corporate tax treatment, free use of facilities, consultancies, guarantees, training, and subsidized staff costs and overheads).

6.2.3. Treatment of Interest Rate Distortions

6.2.3.1. The level and structure of interest rates are critical determinants of: (i) the economic efficiency with which resources are allocated in an economy, and (ii) financial sector viability.

6.2.3.2. By definition, interest rates reflect the opportunity cost of capital in undistorted markets. Interest rate distortions may lead to a misallocation of resources, resulting in forgone national income. Therefore, the removal of interest rate distortions in a country is an important objective of financial sector reform programs supported by ADB-funded FILs.

6.2.3.3. When there are major interest rate distortions in a country (e.g., large interest rate subsidies, pervasive interest rate controls, or policies that cause extremely high interest rates), ADB does not support a program until the country establishes agreed programs to remove or substantially reduce the distortions during implementation of the FIL.

6.2.3.4. Interest rate reforms should be appropriately phased to minimize adverse impacts on the solvency and liquidity of FIs and enterprises.

6.2.3.5. In determining whether there are major interest rate distortions, the following factors should be considered: (i) whether domestic interest rates are administered, are determined non-competitively, or are affected by the government's fiscal tax/subsidy and regulatory policies; and (ii) when capital markets are open, whether there are significant differences between domestic interest rates and interest rates payable on borrowings of foreign capital (that cannot be explained by prevailing economic conditions).

6.2.3.6. However, under certain circumstances, ADB may support programs that include directed credit or subsidies.

6.2.4. Treatment of Directed-Credit Programs

6.2.4.1. ADB-supported FILs also aim to remove or substantially reduce the use of directed credits, that are similar to interest rate subsidies, as these lead to resource allocation outside market mechanisms.

6.2.4.2. Directed credit programs supported by ADB may be channeled through specialized FIs, particularly those that concentrate their lending in certain subsector market niches for business strategy reasons.

6.2.4.3. In many countries, increasing access to credit by specific sectors (e.g., micro-finance institutions or the rural sector) is a major government policy objective, and some use directed credit to pursue this objective.

6.2.4.4. An ADB FIL may support directed-credit programs to promote sustainable financing for such sectors, provided that the programs are accompanied by reforms to address the underlying institutional infrastructure problems and any market imperfections that inhibit the market-based flow of funds to those sectors.

6.2.4.5. Such reforms include measures to: (i) address obstacles that impede the flow of funds to the credit recipients, or (ii) enhance the creditworthiness of the intended beneficiaries through appropriate approaches such as mutual group guarantees. When such targeted lending is commercially oriented, it is not considered to be directed credit.

6.2.4.6. It is good practice to routinely monitor the contribution of directed credits and their associated concessional terms to the growth of the targeted sector(s) and poverty reduction, taking into account any adverse impact on other parts of the economy.

6.2.5. ADB Policy on Subsidies

6.2.5.1. In some cases, subsidies may be an appropriate use of public funds (e.g., poverty-reduction programs). ADB supports programs involving subsidies only if they:

- are transparent, targeted, and capped
- are funded explicitly through the government budget or other sources subject to effective control and regular review
- are fiscally sustainable
- do not give an unfair advantage to some FIs over other qualified and directly competing institutions; and
- are economically justified, or can be shown to be the least-cost way of achieving poverty reduction objectives

6.2.5.2. Subsidies that do not meet these tests should be phased out, or are substantially reduced, during the course of a FIL.

6.2.6. Eligibility Criteria for FIs

6.2.6.1. ADB requires assurances that FIs, acting as lenders using FILs and other investment operations, are financially efficient and viable institutions. In particular, they must:

- Be financially sustainable – as represented by adequate profitability, capital, and portfolio quality, as confirmed by financial statements prepared and audited in accordance with accounting and auditing principles acceptable to ADB
- Have acceptable levels of loan collections
- Have appropriate capacity, including staffing, for carrying out subproject appraisal (including environmental assessment) and for supervising subproject implementation
- Have the capacity to mobilize domestic resources
- Have adequate managerial autonomy and commercially oriented governance (particularly relevant when state-owned or state-controlled FIs are involved); and
- Have appropriate prudential policies, administrative structure, and business procedures.

6.2.6.2. Using these criteria, ADB determines the eligibility of a proposed FI, or it may require an apex institution or other appropriate entity to do so.

6.2.6.3. New and existing FIs that do not meet all the eligibility criteria for being intermediaries may participate in an ADB-funded FIL if they agree to an institutional development plan that includes a set of time-bound monitorable performance indicators and provides for a midterm review of progress.

6.2.6.4. When an FIL includes such FIs, the size and complexity of the FIL should be commensurate with the FIs' implementation capacity; and the FIL may include an institution-building component that the borrower may pass on in the form of grants. Such FIs' continued participation in the FIL is subject to their satisfactory implementation of their institutional development plans; when progress is not satisfactory, ADB considers appropriate remedial action, including suspension.

6.2.6.5. FIs whose performance in relation to eligibility criteria has been unsatisfactory for an extended period of time are required to take substantial corrective measures and to demonstrate improvement before they are permitted to participate in a FIL under an institutional development plan as described above.

6.3. FI Investments

6.3.1. Introduction

6.3.1.1. This section describes ADB's approach to FI investments. It discusses selection of participating institutions and appraisal approaches.

6.3.2. Investing in FIs

6.3.2.1. ADB's involvement in a country's financial sector is set out in the Country Strategy Paper (CSP) and driven by ADB's overarching poverty-reduction objective. As relevant, the CSP: (i) shows how the financial sector affects country development prospects; (ii) highlights reforms to be supported by ADB financial sector operations, including their sequencing; and (iii) states why the proposed operation is the appropriate vehicle for ADB support for reforms.

6.3.2.2. As appropriate, ADB consults with the IMF, the World Bank, and selected donors on proposed FI lending, and it coordinates its financial sector strategies and operations with theirs.

6.3.2.3. One of the forms of ADB's intervention in the financial sector is a Financial Institution loan (FIL). Under an FIL or an FIL component of an investment loan, ADB provides funds to eligible participating FIs for on-lending, at the FI's risk, to final borrowers.

6.3.2.4. The appraisal should ensure that the following objectives of FI lending include: (i) supporting reform programs in the financial sector or related real sectors; (ii) financing real sector investment needs; (iii) promoting private sector development; (iv) helping to stabilize, broaden, and increase the efficiency of financial markets and their allocation of resources and services; (v) promoting the development of the participating FIs; and (vi) supporting the country's poverty reduction objectives.

6.3.2.5. FILs are provided in the context of sound analytical work on sector issues, appropriate technical assistance, and, as relevant, adjustment operations to address policy issues.

6.3.2.6. ADB's intervention in the financial sector may also be in the form of other lending instruments (e.g., structural and sector adjustment loans and technical assistance loans), guarantees, and non-lending activities (e.g., country economic and sector work, training, and financial advisory services).

6.3.3. Selecting Participating Institutions

6.3.3.1. ADB's Economics and Development Resource Center (EDRC) developed a paper in 1999 that explored in detail approaches to selecting participating financial institutions in credit projects. This paper, *Towards Good Practice*, can be accessed in the Knowledge Management section of the web-based Guidelines.

6.3.4. Appraising an FI Investment

6.3.4.1. Introduction

6.3.4.1.1. ADB's appraisal of an FIL should:

- Confirm, with justifications, if it is the appropriate intervention to achieve the desired objectives with due regard to the sustainability of the financial sector
- Establish the financial and economic justifications for the operation
- Confirm, for an FIL justified by its poverty-reduction goals, that it is a practicable, cost-effective way of achieving such goals
- Confirm the eligibility of FIs proposed for inclusion
- Confirm that implementing the FIL is not likely to undermine the financial condition of participating FIs.

6.3.4.1.2. The economic analysis of an FIL should take into account the prevailing and expected macroeconomic environment and substantiate that the proposed operation will lead to net economic benefits arising from policy and institutional changes and increased availability of investment funds.

6.3.4.1.3. If the justification for an FIL depends critically on addressing perceived market failures (i.e., non-market effects or externalities), the analysis should explain the assumptions and their empirical basis. If there is evidence of a subsidy involved in an FIL such that resources, through interest rates or other forms, are provided below their economic opportunity cost, the extent of subsidy dependence must be calculated and assessed.

6.3.4.1.4. Risk analysis should be used to demonstrate how robust the projected economic benefits of the project are to possible changes in assumptions about the macro economy, borrower commitment to the reforms supported by the FIL, and institutional performance. Note that this reference to risk analysis should not be confused with market risk and associated indicators.

6.3.4.2. Sub-Projects

6.3.4.2.1. Increased production of goods and services should be established at the subproject level. It must be derived from expanding existing productive capacity, increasing the efficiency of capacity utilization, or creating new types of productive capacity. Working capital financing to maintain existing levels of production is not eligible for ADB financing.

6.3.4.2.2. FILs are used to finance investments in subprojects for increased production of goods and services. The subprojects must meet eligibility and development criteria agreed with ADB. ADB agrees with the borrower on appropriate arrangements to monitor subproject compliance with these criteria. In addition to the above criteria, the appraisal should ensure that subprojects are financially viable and technically, commercially, managerially, and environmentally sound.

6.3.4.3. Use of ADB Funds

6.3.4.3.1. The borrower may pass on ADB funds to a FI either as a loan or as borrower's equity; similarly, FIs may pass on ADB funds to subborrowers as subloans or equity investments. In all cases, ADB funds are disbursed against eligible expenditures for goods, works, and services.

6.3.4.3.2. FILs are normally amortized by ADB's borrowers on country terms as established by ADB and not on a back-to-back basis (by earmarking subborrowers' repayments for amortizing the ADB loan). The borrower may pass the funds on to FIs either on a back-to-back basis or on the basis of another amortization schedule acceptable to ADB.

6.3.4.3.3. When FI loan repayments to the borrower are not on a back-to-back basis, FIs may, within their overall loan amortization schedules, use repayments for purposes that are consistent with their business strategies, or for prepayments to the borrower. Under an apex or two-tier lending arrangement, ADB funds are passed initially to an apex (first-tier) institution, which on lends them to the participating retail financial institutions.

6.3.4.3.4. An FI with actual or potential conflict-of-interest cannot serve as an apex institution.

6.3.4.3.5. Two-tier lending arrangements are common, but a three-tier arrangement may be feasible, particularly to address micro-credit operations.

6.3.4.4. On-lending Terms

6.3.4.4.1. FIL on-lending terms are set in the context of a borrowing country's interest rate structure and any agreed program for interest rate reforms.

6.3.4.4.2. ADB funds are priced to be competitive with what the participating FIs and their subborrowers would pay in the market for similar money, taking into account, as relevant, maturities, risks, and scarcity of capital.

6.3.4.4.3. When interest rates are not market-determined and there is an agreed program of interest rate reforms, FIL funds are on-lent to participating FIs at interest rates agreed with ADB that: (i) are not negative in real terms; (ii) provide adequate margins to FIs to cover all costs, including credit and other risks, and an adequate profit margin; and (iii) do not discourage resource mobilization from the market by providing a price advantage in using FIL funds.

6.3.4.4.4. ADB funds may be on lent to participating FIs and their subborrowers in either foreign exchange or domestic currency on the basis of prudent credit decisions, including prospective subborrowers' ability to bear the foreign exchange risk to avoid later credit risk. Where interest rates are market-determined and there is relatively easy capital movement, local currency interest rates include an implicit premium that reflects market expectations in regard to exchange rate changes. In such situations: (i) ADB FIL funds are on-lent to FIs in either local or foreign currency, provided the on lending interest rates are consistent with prevailing interest rates in the borrowing country for comparable credit; and (ii) FIs normally on lend to subborrowers in the same currency or currencies that the FIs borrowed.

6.3.4.4.5. If interest rates are not market-determined but are set administratively, it is not possible to determine market expectations of exchange rate changes, as foreign exchange risks may be under priced in local currency interest rates. Therefore, the foreign exchange risk of FIL funds is borne either by: (i) Subborrowers through borrowing and repayment in foreign currency, or (ii) the government if on-lending and repayment are in domestic currency at prevailing administered interest rates. In the latter case, the government charges a fee that is passed on to FIs and subborrowers to offset the anticipated foreign exchange risk.

6.3.4.5. Monitoring FI Investments

6.3.4.5.1. During project appraisal and negotiations, provision is made for effective monitoring and evaluation of the FIs' progress toward its objectives and development impact throughout the life of the project.

6.3.4.5.2. The performance indicators agreed on at loan negotiations cover sectoral, financial, and institutional variables.

6.3.4.5.3. The variables for the FIs include among other things, adequacy of capital, quantity and quality of earnings, quality of assets, sufficiency of liquidity, extent of subsidy dependence, effectiveness of FI loan administration (appraisal, supervision, and collection performance), and adequacy and timeliness of preparation of audited financial statements. During implementation, ADB, the borrower, and the FIs in each tier must use the agreed

performance indicators, implementation progress reports, and a review of a sample of subprojects to monitor the FI's progress.

6.3.4.5.4. At least once each year during implementation, ADB conducts a formal review of the condition and performance of participating FIs, including a review of their audited financial statements, to determine their continued compliance with eligibility criteria. The findings of this review are to be recorded in supervision reports.

6.4. Assessing FI Performance

6.4.1. Introduction

6.4.1.1. A wide range of indicators is available for reporting by FIs. The most important are described in this section. The ratios and indicators that are described in other parts of these Guidelines are generally not appropriate for assessing FI performance.

6.4.1.2. It is important that the financial analyst (investment officer) only recommends indicators that the FI fully understands and is willing to use in their day-to-day management processes. However, where a FI is reluctant to prepare and use indicators effectively, or does not have a financial management system capable of preparing the indicators that ADB staff have recommended, these issues should be recorded in an Aide Memoire and reported to an MRM.

6.4.1.3. The most important criteria for determining the appropriateness of an FI to act as a financial intermediary are its solvency, profitability, and liquidity. In this respect, since 1988, the Basle Committee on Banking Supervision (BCBS) of the Bank of International Settlements (BIS) has recommended using **C**apital adequacy, **A**ssets quality, **M**anagement quality, **E**arnings and **L**iquidity (CAMEL) as criteria for assessing an FI.

6.4.1.4. The following sections describe the application of the CAMEL framework and provide a selection of appropriate indicators. They also discuss risk management in relation to FIs. A special section examines the application of these Guidelines to Microfinance Institutions (MFIs).

6.4.2. Assessing Microfinance Institutions (MFIs)

6.4.2.1. The World Council of Credit Unions (WOCCU) recommends a set of financial ratios covering **P**rotection, **E**ffective financial structure, **A**sset quality, **R**ates of return and costs, and **L**iquidity and **S**igns of growth (PEARLS) to monitor the financial stability of

Credit Unions, including MFIs. The PEARLS methodology is specifically designed for evaluating credit unions and addresses shortcomings of the CAMEL system in this respect.

6.4.2.2. Further information on the PEARLS methodology can be found in the Knowledge Management section of the web-based Guidelines and at www.woccu.org.

6.4.3. Applying the CAMEL Framework

6.4.3.1. The five following subsections describe the components of the CAMEL framework and recommend appropriate performance measures.

6.4.3.1. Capital Adequacy Ratio (CAR)

6.4.3.1.1. Capital Adequacy is a measure of an FI's financial strength, in particular its ability to cushion operational and abnormal losses. An FI should have adequate capital to support its risk assets in accordance with the risk-weighted capital ratio framework. It has become recognized that capital adequacy more appropriately relates to asset structure than to the volume of liabilities. This is exemplified by central banks' efforts internationally to unify the capital requirements of commercial banks and to generate worldwide classification formulae such as the one proposed here. This indicator requires that assets be classified by reference to their demands on the equity (or capital) structure of the FI.

6.4.3.1.2. The CAR indicator is derived by comparing the ratio of an entity's equity to its assets-at-risk. The covenant specifies that the borrower/EA/FI should not make an advance to a subborrower if after making the advance, the ratio (the performance indicator) of its equity to its assets-at-risk would be greater than that specified in the covenant.

$$\text{Capital Adequacy Ratio (\%)} = \frac{[\text{Paid in Capital} + \text{Reserve Funds} + \text{Net Profits}] \times 100}{\text{Total Assets} - \text{Loan loss Provision} - \text{Risk-free Assets}}$$

Risk-free assets should include:
 (i) Cash on hand; (ii) Due from Banks;
 (iii) Interbank loans; (iv) Government-guaranteed loans; and (v) Investments in government securities, etc.

6.4.3.1.3. Equity is defined as the total of: (i) unimpaired paid-up capital; (ii) retained earnings; (iii) reserves available to meet any losses that may be incurred through the non-recovery of assets; and (iv) all other capital and revenue reserves including provisions for bad and doubtful debts; provisions for loan and lease losses.

6.4.3.1.4. Assets-at-risk are defined as the total of the impaired values of assets at the date of making the advance to the subborrower. Assets are typically classified as: (i) risk-free; (ii) minimum risk; (iii) general risk; (iv) substandard; (v) "workout" (or minimal

chance of recovery); and (vi) fixed assets, furniture and office equipment, computers, etc. To each of these classifications is awarded a percentage of their values for which an FI's capital is needed to cover risk of losses.

6.4.3.1.5. The BCBS of the BIS recommends a mandatory minimum CAR of 8 percent for banks in OECD countries. However, the emerging banking regulatory and supervision system in most ADB DMCs, combined with an emphasis on directed lending, results in poor portfolio quality. As such, these Guidelines recommend a minimum Capital Adequacy Ratio (CAR) of 12 percent.

6.4.3.2. *Assessing Asset Quality*

6.4.3.2.1. Asset Quality has direct impact on the financial performance of an FI. The quality of assets particularly, loan assets and investments, would depend largely on the risk management system of the institution. The value of loan assets would depend on the realizable value of the collateral while investment assets would depend on the market value.

Ratios or Other Measures	Computation Method	Significance and Notes
1. Loan Concentration Tables	Concentration of Loans by: <ul style="list-style-type: none"> • Industry • Region • Borrower • Portfolio Quality 	Indicates concentration of exposure. The analyst should review whether the FI has a policy regarding the ceiling or maximum exposure to any company or group.
2. Related Party Policies and Exposure	<ul style="list-style-type: none"> • Loans outstanding to related parties. • Current approval process for these loans. • Checks and balances for such loans. 	
3. Loan Loss Provision Ratio (%)	$\frac{\text{Loan Loss Provision}}{\text{Average Performing Assets}}$	Indicates provisioning requirements on loan portfolio for the current period. <ul style="list-style-type: none"> • The Loan Loss Provision is the current period allocation to the loan loss reserve. • Performing assets currently pay interest or are not more than 60 days past due.

Ratios or Other Measures	Computation Method	Significance and Notes
		<ul style="list-style-type: none"> Average performing assets: beginning balance and ending balance are averaged for the period (including loans, investment and advances).
4. Portfolio in Arrears (%)	$\frac{\text{Balance of Loans in Arrears} \times 100}{\text{Value of Loans Outstanding}}$	Measures amount of default in the portfolio.
5. Loan Loss Ratio (%)	$\frac{\text{Amounts Written Off} \times 100}{\text{Average Loans Outstanding}}$	<p>Indicates extent of uncollectible loans over the last period. Any loan more than one year past due should automatically be considered uncollectible.</p> <ul style="list-style-type: none"> The Amount Written Off is the loss recognized on a loan during the period.
6. Reserve Ratio (%)	$\frac{\text{Loan Loss Reserve} \times 100}{\text{Value of Loans Outstanding}}$	<p>Indicates the adequacy of reserves in relation to the portfolio.</p> <ul style="list-style-type: none"> The Loan loss reserve is a reserve maintained to cover potential loan losses.

6.4.3.3. Assessing Management Quality

6.4.3.3.1. The performance of the other four CAMEL components will depend on the vision, capability, agility, professionalism, integrity and competence of the FI's management. As sound management is crucial for the success of any institution, management quality is generally accorded greater weighting in the assessment of the overall CAMEL composite rating.

Ratios or Other Measures	Computation Method	Significance and Notes
1. Cost per Unit of Money Lent	$\frac{\text{Operating Costs}}{\text{Total Amount Disbursed}}$	Indicates efficiency in distributing loans (in monetary terms).

6.4.3.4. Assessing Earning Performance

6.4.3.4.1. The quality and trend of earnings of an institution depend largely on how well the management manages the assets and liabilities of the institution. An FI must earn reasonable profit to support asset growth, build up adequate reserves and enhance shareholders' value. Good earnings performance would inspire the confidence of depositors, investors, creditors, and the public at large.

Ratios or Other Measures	Computation Method		Significance and Notes
1. Return on Assets (%)	$\frac{\text{Net Income After Tax} \times 100}{\text{Average Total Assets}}$		
2. Return on Equity (%)	$\frac{\text{Net Income After Tax} \times 100}{\text{Average Total Equity Funds}}$		
3. Interest-Spread Ratio (%)	$\frac{\text{Income from Loan Portfolio} \times 100 \text{ (a)}}{\text{Average Loan Portfolio (b)}}$	$\frac{\text{Interest Expenses and Other Financial Charges} \times 100 \text{ (c)}}{\text{Average Borrowings (d)}}$	(a) Sum of interest on the loan portfolio plus interest received from other FIs. It also includes discount and commission earned and other charges (front-end fees) levied on customers. (b) Average of customer loans, interbank loans and due from banks. (c) Includes commission and discount paid, brokerage, charges levied by correspondent banks, etc. (d) Comprises deposits and other borrowings.
4. Earnings-Spread Ratio (%)	$\frac{\text{Total Income} - \text{Non-Operating Income} \times 100}{\text{Average Total Portfolio (e)}}$	$\frac{\text{Interest Expenses and Other Financial Charges} \times 100}{\text{Average Total Resources (f)}}$	(e) Loan portfolio, cash, Due from Banks, Interbank loans, Investments in Government securities and other investments. (f) Equity + Deposits + Borrowings.
5. Intermediation Cost Ratio (%)	$\frac{[\text{Total Expenses} - (\text{Interest expenses} + \text{fees and commissions and commitment charges})] \times 100}{\text{Average Total Assets}}$		

6.4.3.5. *Assessing Liquidity*

6.4.3.5.1. An FI must always be liquid to meet depositors' and creditors' demand in order to maintain public confidence. There needs to be an effective asset and liability management system to minimize maturity mismatches between assets and liabilities and to optimize returns. As liquidity has inverse relationship with profitability, an FI must strike a balance between liquidity and profitability.

6.4.3.5.2. Current and quick ratios are inappropriate for measuring FI liquidity. A loan-to-deposit ratio is more relevant. However, an FI's liquidity and solvency are directly affected by portfolio quality. Consequently, Financial analysts (investment officers) should carefully analyze the FI's portfolio quality on the basis of collectability and loan-loss provisioning. Section 6.4.3.2 suggests appropriate measures in this respect.

Ratios or Other Measures	Computation Method
1. Loan to Deposit Ratio (%)	$\frac{\text{Loans (excluding short-term loans and marketable securities)}}{\text{Customer Deposits}} \times 100$
2. Loan to Deposit Ratio (Medium and Long-term) (%)	$\frac{\text{Long and Medium-term Loans}}{\text{Long and Medium-term Deposits}} \times 100$

6.4.4. *Assessing FI Risks*

6.4.4.1. *Introduction to FI Risk Management*

6.4.4.1.1. The main concern for FIs is risk management. World capital markets are dynamic – their activities can generate rapid and dangerous movements that need to be anticipated and managed. The ability of traditional performance measurement criteria to indicate declining or poor FI performance is limited.

6.4.4.1.2. Therefore the capital markets and their regulators and advisers [e.g., the Basle Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO)] have developed additional means of measuring performance and, more importantly, to identify problems in a timely manner.

6.4.4.1.3. In many cases, the FIs that ADB deals with are attached to the public sector and have multiple objectives (e.g., sectoral development objectives in addition to profitability objectives). The risk factors associated with these FIs are likely to be more

significant than for single-objective commercial banks. Consequently, it is essential that the financial analyst (investment officer) should seek to: (i) identify the principal potential risks that an FI is exposed to; and (ii) develop an appropriate set of indicators that will provide FI management and ADB with an early warning of problems.

6.4.4.1.4. The major risks to be examined include: (i) market risk; (ii) exchange risk; (iii) maturity risk; and (iv) contagion risk.

6.4.4.2. Market Risk and Value-at-Risk (VaR)

6.4.4.2.1. Market risk arises from the potential that a borrower or counter-party will fail to perform on an obligation. The assessment of market risk involves evaluating both the probability of default by counter-party, obligor or issuer and the exposure or financial impact in the event of default. The BCBS of the BIS (www.bis.org) makes recommendations on means to sustain the credit-worthiness of FIs.

6.4.4.2.2. The concept of Value-at-Risk (VaR) is very important in risk management. VaR is a measure of the maximum potential change in an FI's portfolio's value with a given probability over a pre-specified horizon. In simple terms, the Value-at-Risk is meant to answer the question: "Over a 10-day period, what is the dollar amount of V such that there is only a 1% chance our portfolio will lose more than V?"

6.4.4.2.3. The main advantages of VaR-based management are that: (i) it incorporates the mark-to-market approach uniformly; and (ii) it relies on a short forecast horizon of market variables. In some ADB DMCs, particularly in transitional economies, some bank lending is government guaranteed. Financial analysts should treat government-guaranteed bank lending as risk free when estimating VaR.

6.4.4.3. Foreign Exchange Risk

6.4.4.3.1. The Bank of International Settlements (BIS) document on Managing Settlement Risk is included in the Knowledge Management part of the web-based Guidelines. The document provides advice and guidance on managing foreign exchange settlement risks. It also defines foreign exchange settlement risk, advises on management practices, and includes guidance on internal auditing.

6.4.4.4. Maturity Risk

6.4.4.4.1. Maturity risk relates to mismatching of investments and borrowing operations. To the extent possible, to avoid losses, an FI should seek to match the maturities of subloans and borrowing operations to minimize the risk of having to meet large outgoing

interest payments on borrowings and deposits with lower levels of interest receipts from subloans.

6.4.4.4.2. Mismatching can be expensive during times of increasing market rates, particularly when the FI may have subloans extended over four to six years with no break or adjustment clauses to address rising interest costs.

6.4.4.4.3. An FI should maintain a running risk analysis of forecast forward transactions with alternative scenarios of market (borrowing rates) to identify the date(s) when it is most at risk, based on its current portfolio. Forecasts of future portfolios can be similarly risk assessed.

6.4.4.5. Contagion Risk

6.4.4.5.1. Contagion can arise in regions (such as Southeast Asia), in countries, in regions within countries, or within a class or category of financial institutions (such as agricultural FIs).

6.4.4.5.2. Contagion risk can arise where declining economic conditions of depositors and subborrowers simultaneously cause a shortage of funds and a rapid increase in defaults on subloans. This condition can automatically trigger a substantial rise in the risk premium of major lenders that prevents an FI from covering shortfalls.

6.4.4.5.3. Anticipating and avoiding contagion risk is best addressed by financial sector supervisors and regulators because they should maintain a consistent, regular overarching view of the financial sectors and of the local/national/international economies with the objective of providing early warnings, not only to the financial institutions, but to the appropriate ministries that are charged with economic management.

6.4.4.6. The Role of Regulators in Risk Management

6.4.4.6.1. The financial analyst (investment officer) should interview regulators and receive assurances that the following matters are addressed:

- Market surveillance for large positions
- Cross-market supervision
- Setting of capital reserves
- Disclosure of data on market value of financial instruments and risk policies to achieve least-cost uniformity in the sector
- Examination of FIs' records and internal controls

- Optimum collaboration with FIs' auditors
- International, regional, and national linkages and exchanges of information
- There is a set of rules and requirements that, at the lowest possible cost, effectively contributes to prevent an isolated failure or crisis of small proportions threatening the market as a whole
- To the extent possible obtaining voluntary convergence and agreement on the role of the regulator
- A complete set of emergency plans
- That the emergency plans are constantly updated
- That the emergency plans are agreed between the central bank and FIs)

6.4.4.7. Other Key Risk Management Steps

6.4.4.7.1. The following steps should be considered as means of supporting the generation of useful and accurate performance indicators in a FI:

- The use of a consistent set of accounting standards (IOSCO supports the use of IASs).²⁹
- Efficient netting agreements.
- Segregation of customers' accounts and protection of customers' funds in event of bankruptcy.
- Ensuring regulators are kept fully informed, and are efficient in their reporting.

6.4.5. Determining FI Credit Ratings

6.4.5.1. The BCBS of the BIS is in the process of replacing the CAMEL framework. The new policy will become effective in 2003 and will mandate the minimum CAR for banks, based upon their overall credit rating.

6.4.5.2. Financial analysts (investment officers) are required to determine the credit rating of the FI being appraised. In some cases, these credit ratings will be readily available from published sources (for instance, the Standard & Poor's Global Ratings Handbook). In other cases, the financial analyst (investment officer) can determine the FI's credit rating by questioning other FIs in the country or region.

²⁹ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

6.4.6. Specialized FI Internal Controls

6.4.6.1. Internal controls for FIs:

- Should comprise a set of rules and procedures designed to provide qualitative standards that are complimentary to the quantitative analysis of risk
- Are becoming increasingly employed by banks and securities institutions
- Should be used to internally manage operational risk, agency risk, and legal risk
- Should be exercised by independent control unit reporting to the Board, and having no operating linkage with trading activities that create risk

6.4.6.2. The objective is to enhance risk management culture in organization, including by:

- Requiring transparency of reports and documentation of the risk control process
- Monitoring the content and the efficiency of the vertical and horizontal information flows
- Monitoring and reporting on accountability
- Ensuring remuneration policy rewards efficient risk management through high returns and minimum risk
- Monitoring observance of trading limits and market procedures
- Establishing rules for dealing with changes in volatilities
- Testing the soundness of models
- Examining the quality and uniformity of data input
- Validating and back-testing procedures

6.5. Appraisal Checklist

6.5.1. A checklist for appraising an FI project is provided in the Knowledge Management section, along with other appraisal checklists (see section 7.10).

6.5.2. FIs comprise a wide range of institutions, including Apex institutions that service one or more FIs in a country. FIs may provide services to one or more sectors in a country (agriculture, various categories of industry, etc.), including support to microfinance organizations. Therefore the generic appraisal checklist should be used with caution and appropriately modified to address the nature and form of the FI being appraised.

6.6. FI Reporting and Auditing Issues

6.6.1. Introduction

6.6.1.1. Financial reporting by, and audits of, FIs require individual specifications for each institution so that financial reporting and auditing requirements will be appropriate to the type, nature, and form of the institution.

6.6.1.2. For example, an industrial FI and a microfinance FI have few common characteristics and the reporting requirements and the auditing specifications will differ sharply.

6.6.1.3. Unless the financial analyst concerned is well-experienced in the financial management of FIs, it is recommended that a consultant be employed, who is experienced with the type of FI that is to be the subject of financial reporting, and later, auditing. Specific guidance on MFI reporting and auditing issues is given below.

6.6.2. FI Financial Reporting

6.6.2.1. FIs should be required to report in accordance with IAS No. 30 (Disclosures in the Financial Statements of Banks and Similar Financial Institutions) or SFAS 17 of US GAAP.³⁰

6.6.2.2. In addition to the standard statements (Balance Sheet, Income Statement and Cash Flow Statement), an FI should be required to provide the additional statements listed below. This listing is not all-inclusive and should be amended to address the objectives and operations of the FI to be audited:

- The income statement and balance sheet adjusted for subsidiaries
- Portfolio Report for current and two past years
- Portfolio Report showing aging of receivables (arrears)
- Portfolio Report showing aging of portfolio at risk
- Capital Adequacy Analysis
- Assets Structure by Income
- Table of Contingencies, Guarantees, Commitments showing corresponding securities and collateral

³⁰ Financial Analysts have **discretion to agree alternative arrangements** (see paragraph 2.4.3)

6.6.3. FI Auditing

6.6.3.1. Selection of an auditor for a FI should include the provision of a TOR that is specifically geared to the FI concerned.

6.6.3.2. In addition to the standard requirements (See section 5.4) for auditor selection and appointment, including providing a report and an opinion on the annual financial statements, the auditor should be required to include in the report confirmation, or otherwise, that the additional financial statements and the performance indicators listed above can be relied upon.

6.6.3.3. The Terms of Reference should also address the following:

- The auditor's impression of the efficiency and effectiveness of the overall operations and condition of the institution
- The adequacy of the intermediary's risk management systems and internal control procedures, including whether or not the bank uses VaR, and if so, whether its use is professionally managed under a separate non-lending manager; results achieved during the fiscal year; and the operation of VaR as at the date of completion of the audit
- The quality of the loan portfolio and adequacy of loan loss provisions, illustrated as necessary by use of performance indicators above
- The competence and effectiveness of management, including development of strategic plans and their implementation
- The adequacy of accounting, financial reporting and management information systems
- The adequacy of public information systems
- The resolution, or otherwise, of issues identified off-site or during previous on-site supervisory processes
- Adherence to laws and regulations and terms of licenses and agreements, including loan covenants with ADB
- A commentary on central bank or other forms of regulatory supervision during the fiscal year
- Quality of human resources employed by the FI and their potential to efficiently sustain all areas of the FI's operations

6.6.4. MFI Financial Reporting and Auditing

6.6.4.1. The Consultative Group to Assist the Poorest (CGAP) publishes specific guidance on MFI reporting and auditing issues. This guidance includes Handbooks for MFI auditors, Guidelines for MFI financial statements, and a handbook on appraising an MFI. These materials can be accessed online at www.cgap.org.

7. Knowledge Management

7.1. Useful Websites

7.1.1.1. Regulatory and Standard-Setting Bodies

Bank for International Settlements (BIS)	www.bis.org
Financial Accounting Standards Board (FASB – United States)	www.fasb.org
International Accounting Standards Board (IASB)	www.iasc.org.uk
International Federation of Accountants (IFAC)	www.ifac.org

7.1.1.2. Professional Bodies

ASEAN Federation of Accountants (AFA)	www.afa-central.com
Confederation of Asian and Pacific Accountants (CAPA)	www.capa.com.my
International Federation of Accountants (IFAC)	www.ifac.org
South Asian Federation of Accountants (SAFA)	www.citechco.net/safa/
The Regional Federation of Accountants and Auditors–Eurasia	See www.oecd.org/daf/corporate-affairs/disclosure/eurasia/

7.1.1.3. International Organizations

Asia Pacific Economic Council (APEC)	www.apecsec.org.sg
Association of Southeast Asian Nations (ASEAN)	www.asean.or.id
International Federation of Accountants (IFAC)	www.ifac.org
International Organization of Securities Commissions (IOSCO)	www.iosco.org
World Trade Organization (WTO)	www.wto.org

7.1.1.4. Donor Organizations

Multilateral Organizations

Asian Development Bank (ADB)	www.adb.org
European Bank for Reconstruction and Development (EBRD)	www.ebrd.org
European Union – Technical Assistance to the Commonwealth of Independent States (EU-TACIS)	http://europa.eu.int/comm/dg1a/tacis/index.htm
International Monetary Fund (IMF)	www.imf.org
Islamic Development Bank (ISDB)	www.isdb.org
United Nations Development Program (UNDP)	www.undp.org
World Bank	www.worldbank.org

Selected Bilateral Organizations

Australian Agency for International Development (AusAID)	www.ausaid.gov.au
Canadian International Development Agency (CIDA)	www.acdi-cida.gc.ca
Danish International Development Agency (DANIDA)	www.um.dk/danida/
Department for International Development (DFID) (United Kingdom)	http://www.dfid.gov.uk/
Gesellschaft für Technische Zusammenarbeit (GTZ) (German Technical Cooperation)	http://www.gtz.de/ home/english/
Japan Bank for International Cooperation (JBIC)	www.jbic.go.jp
Japan International Cooperation Agency (JICA)	www.jica.go.jp
Swedish International Development Agency (SIDA)	www.sida.se
United States Agency for International Development (USAID)	www.usaid.gov

7.1.1.5. Sectoral References

Microfinance

Consultative Group to Assist the Poorest (CGAP)	www.cgap.org
World Council of Credit Unions (WCCU)	www.wccu.org

7.2. Operations Manual (OM)

7.2.1. The following OMs were effective as of 1 June 2001:

OM No.	Subject	Date of Issue
1	Classification of Developing Member Countries in Bank Operations	12 December 1995
2	Bank Operations in Pacific Developing Member Countries	12 September 1996
3	Lending and Relending Policies (Ordinary Capital Resources)	12 December 1995
4	Lending and Relending Policies (Asian Development Fund)	12 December 1995
5	Sector Lending	12 December 1995
6	Program Lending	16 April 1997
7	Assistance to Private Enterprise	10 October 1996
9	Financing of Interest and Other Charges During Construction	12 December 1995
10	Financing Indirect Foreign Exchange Cost of Projects	12 December 1995
11	Lending Foreign Exchange for Local Expenditures on Projects	12 December 1995
12	Retroactive Financing	12 December 1995
13	Supplementary Financing of Cost Overruns on Bank-Financed Projects	12 December 1995

OM No.	Subject	Date of Issue
14	Use of Surplus Loan Funds	12 December 1995
15	Foreign Exchange Risk in Bank Operations	12 December 1995
17	Sector Development Programs	16 April 1997
18	Technical Assistance	12 December 1995
19	Guarantee and Security Arrangements for Bank Loans	12 December 1995
20	Environmental Considerations in Bank Operations	07 January 1997
21	Gender and Development in Bank Operations	07 January 1997
22	Benefit Monitoring and Evaluation	07 January 1997
23	The Bank's Cooperation with NGOs	[under preparation]
24	Emergency Rehabilitation Assistance Loan for Small DMCs	08 June 1998
25	Rehabilitation Assistance After Disasters	12 December 1995
26	Cooperation Arrangements with International Organizations and Bilateral Sources	[under preparation]
27	Coordination with Aid Agencies	20 February 1998
28	Regional Cooperation	12 December 1995
29	Cofinancing	12 December 1995
30	Japan Special Fund	12 December 1995
31	Guarantee Operations	12 December 1995
32	Bank's Operational Missions	13 January 1997
33	Communication with Members of the Board of Directors	12 December 1995
34	Processing of Loan Proposals	13 January 1997
35	Project Financial Management Systems, Financial Analysis and Financial Performance Indicators	12 December 1995
36	Economic Analysis of Projects	12 November 1997
38	Procurement of Goods and Works	12 December 1995
39	Use of Consulting Services	12 December 1995
40	Formulation and Implementation of Loan Covenants	12 December 1995
41	Effectiveness of the Loan Agreement	12 December 1995
42	Loan Disbursement and Loan Closing	12 December 1995
43	Project Accounting, Financial Reporting, and Auditing	12 December 1995
44	Post Evaluation	12 December 1995
45	Country Planning and Programming	19 November 1996
47	Incorporation of Social Dimensions in Bank Operations	07 January 1997
48	Poverty Reduction	[under preparation]
49	Inspection	31 August 1998
50	Involuntary Resettlement	07 January 1997
51	Internal Audit	16 October 1996
52	Public Disclosure	[under preparation]

OM No.	Subject	Date of Issue
53	Indigenous Peoples	21 December 2000
54	Governance	13 January 1997
55	Anticorruption	20 July 2000

7.3. Project Administration Instructions (PAIs)

7.3.1. The following PAIs were effective as of 31 December 2001:

PAI No.	Subject	Date of Issue
	1. Preparatory Supervision Actions	
1.01	Initial Project Administration Activities	December 2001
1.02	Organization Framework for Project Administration	December 2001
1.03	Signing of Loan and Technical Assistance Letter/Agreements	December 2001
1.04	Conditions and Declaration of Loan Effectiveness	December 2001
	2. Consultants	
2.01	General Guidelines on Recruiting Consultants	December 2001
2.02	Recruiting Consulting Firms for Technical Assistance	December 2001
2.03	Types of Technical Proposals	December 2001
2.04	Recruiting Consulting Firms for Loan Projects	December 2001
2.05	Recruiting Individual Consultants for Technical Assistance	December 2001
2.06	Recruiting Individual Consultants for Loan Projects	December 2001
2.07	Recruiting Staff Consultants	December 2001
2.08	Recruiting Training Consultants	December 2001
2.09	Responsibilities of Appraisal Missions to Help Borrowers Recruit Consultants	December 2001
2.10	Using Domestic Consultants from Borrowing Countries	December 2001
2.11	Evaluating the Performance of Consulting Firms	December 2001
2.12	Evaluating the Performance of Individual Consultants	December 2001
	3. Procurement	
3.01	Preparatory Work and Procurement Supervision	December 2001
3.02	Eligibility	December 2001
3.03	International Competitive Bidding	December 2001
3.04	Local Competitive Bidding	December 2001
3.05	Other Forms of Procurement	December 2001
3.06	Domestic Preference Scheme	December 2001

PAI No.	Subject	Date of Issue
3.07	Advertising Procurement of Goods and Works	December 2001
3.08	Bid Security	December 2001
3.09	Pricing and Freight Charges in Bids and Contracts	December 2001
3.10	Procuring Commodities under ADB Loans	December 2001
3.11	Functions and Rules of the Procurement Committee	December 2001
3.12	Procurement Contract Summary Sheet (PCSS) Procurement Contract Update Sheet (PCUS)	December 2001
4. Disbursement		
4.01	Withdrawal Applications	December 2001
4.02	Disbursement under Force Account Works	December 2001
4.03	Disbursement under Civil Works Contracts	December 2001
4.04	Suspension and Cancellation of Loans	December 2001
4.05	Loan Closing Dates	December 2001
4.06	Controlling Adverse Effect of Foreign Exchange Fluctuations on Externally Financed or Cofinanced Grants	December 2001
5. Project Administration Actions		
5.01	EA Progress Report	December 2001
5.02	Contract Awards, Commitments, and Disbursement Projections	December 2001
5.03	Reviewing Compliance with Loan Covenants	December 2001
5.04	Change in Project Scope or Implementation Arrangements	December 2001
5.05	Reallocation of Loan Proceeds	December 2001
5.06	Utilization of Surplus Loan Funds	December 2001
5.07	Project Cost Overruns	December 2001
5.08	Local Cost Financing By Borrowers	December 2001
5.09	Submission of Audited Project Accounts and Financial Statements	December 2001
5.10	Project Performance Ratings	December 2001
5.11	Administration of Grant-Financed Technical Assistance Projects	December 2001
6. Internal Procedures and Reports		
6.01	Project Administration Reviews	December 2001
6.02	Project Administration Missions	December 2001
6.03	Reports by Project Administration Missions	December 2001

PAI No.	Subject	Date of Issue
6.04	Loan Milestone Event Dates	December 2001
6.05	Project Performance Reports	December 2001
6.06	Reports to Management and the Board Of Directors on Loan and TA Performance	December 2001
6.07	Project Completion Report	December 2001
6.08	TA Completion Report	December 2001

7.4. International Accounting Standards (IASs)

7.4.1. Thirty-four IASs were effective at 31 March 2001:

IAS 1	Presentation of Financial Statements
IAS 2	Inventories
IAS 7	Cash Flow Statements
IAS 8	Profit or Loss for the Period, Fundamental Errors and Changes in Accounting Policies
IAS 10	Events After the Balance Sheet Date
IAS 11	Construction Contracts
IAS 12	Income Taxes
IAS 14	Segment Reporting
IAS 15	Information Reflecting the Effects of Changing Prices
IAS 16	Property, Plant, and Equipment
IAS 17	Leases
IAS 18	Revenue
IAS 19	Employee Benefits
IAS 20	Accounting for Government Grants and Disclosure of Government Assistance
IAS 21	The Effects of Changes in Foreign Exchange Rates
IAS 22	Business Combinations
IAS 23	Borrowing Costs
IAS 24	Related Party Disclosures
IAS 26	Accounting and Reporting by Retirement Benefit Plans
IAS 27	Consolidated Financial Statements and Accounting for Investments in Subsidiaries
IAS 28	Accounting for Investments in Associates
IAS 29	Financial Reporting in Hyperinflationary Economies
IAS 30	Disclosures in the Financial Statements of Banks and Similar Financial Institutions
IAS 31	Financial Reporting of Interests In Joint Ventures
IAS 32	Financial Instruments: Disclosures and Presentation

IAS 33	Earnings Per Share
IAS 34	Interim Financial Reporting
IAS 35	Discontinuing Operations
IAS 36	Impairment of Assets
IAS 37	Provisions, Contingent Liabilities, and Contingent Assets
IAS 38	Intangible Assets
IAS 39	Financial Instruments: Recognition and Measurement
IAS 40	Investment Property
IAS 41	Agriculture

7.5. International Standards on Auditing (ISAs)

7.5.1. The following International Standards on Auditing (ISAs) and International Auditing Practice Statements (IAPs) were in effect at 30 September 2000.

International Standards on Auditing (ISAs)

100	Assurance Engagements
120	Framework of ISAs
200	Objective and General Principles Governing an Audit of Financial Statements
210	Terms of Audit Engagements
220	Quality Control for Audit Work
230	Documentation
240	Fraud and Error
250	Consideration of Laws and Regulations in an Audit of Financial Statements
300	Planning
310	Knowledge of the Business
320	Audit Materiality
400	Risk Assessments and Internal Control
401	Auditing in a Computer Information Systems Environment
402	Audit Considerations Relating to Entities Using Service Organizations
500	Audit Evidence
501	Audit Evidence-Additional Considerations for Specific Items
505	External Confirmations
510	Initial Engagements – Opening Balances
520	Analytical Procedures
530	Audit Sampling and other Selective Testing Procedures
540	Audit of Accounting Estimates
550	Related Parties
560	Subsequent Events
570	Going Concerns
580	Management Representations
600	Using the Work of Another Auditor

- 610 Considering the Work of Internal Auditing
- 620 Using the Work of an Expert
- 700 The Auditor's Report on Financial Statements
- 710 Comparatives
- 720 Other information in documents containing Audited Financial Statements
- 800 The Auditor's Report on Special Purpose Audit Engagement
- 810 The Examination of Prospective Financial Information
- 910 Engagements to Review Financial Statements
- 920 Engagements to Perform Agreed-Upon Procedures Regarding Financial Informational
- 930 Engagements to Compile Financial Information

Glossary of Terms

Preface to ISAs and RSs

International Auditing Practice Statements (IAPs)

- 1000 Inter-Bank Confirmation Procedures
- 1001 CIS Environments-Stand-Alone Microcomputer Systems
- 1002 CIS Environments-On-Line Computer Systems
- 1003 CIS Environments-Database Systems
- 1004 The Relationship Between Bank Supervisors and External Auditors
- 1005 The Special Consideration in the Audit of Small Entities
- 1006 The Audit of International Commercial Banks
- 1007 Communications with Management
- 1009 Computer-Assisted Audit Techniques
- 1010 The Consideration of Environmental Matters in the Audit of Financial Statements
- 1011 Implications For Management And Auditors Of The Year 2000 Issue

7.6. Financial Review Checklist for RRP

7.6.1. EDRC has developed the following checklist for reviewing RRP. Items resulting in 'NO' answers should be resolved to the financial analyst's satisfaction. When reviewing projects, it is important to review the lessons learned from the past. In this respect, the first section of the checklist (lessons from past projects) provides guidance on the issues that should be examined. The remaining sections apply to the project under appraisal.

- | 7.6.1. Lessons from Past Projects | Yes | No |
|---|--------------------------|--------------------------|
| (a) Were finance-related covenants met (for instance, revenue-generating targets, following up on agreed financial restructuring, adhering to expected financial ratios etc)? | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Were counterpart funds made available on a timely basis? | <input type="checkbox"/> | <input type="checkbox"/> |

(c) Were adequate funds made available for operations and maintenance (O&M)?	<input type="checkbox"/>	<input type="checkbox"/>
(d) Were Financial Statements and Auditor reports submitted in a timely manner?	<input type="checkbox"/>	<input type="checkbox"/>
(e) Were auditors' reports unqualified?	<input type="checkbox"/>	<input type="checkbox"/>
(f) Was there an absence of weaknesses in handling finances or in procurement?	<input type="checkbox"/>	<input type="checkbox"/>
(g) Were onlending and relending activities free of problems?	<input type="checkbox"/>	<input type="checkbox"/>
(h) Were capacity-building programs effective in relation to financial management?	<input type="checkbox"/>	<input type="checkbox"/>
7.6.2. Project Cost Estimates	Yes	No
(a) Has the Project Cost Estimate summary table been prepared in accordance with these Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>
(b) Are detailed project cost estimates available and have they been prepared in accordance with these Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>
(c) Are the assumptions that support the estimates available and do they appear reasonable?	<input type="checkbox"/>	<input type="checkbox"/>
(d) Have Local and Foreign costs been properly identified?	<input type="checkbox"/>	<input type="checkbox"/>
(e) Are the physical and price contingency provisions adequate?	<input type="checkbox"/>	<input type="checkbox"/>
7.6.3 Financing Plan (FP)	Yes	No
(a) Has the FP summary table been prepared in accordance with these Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>
(b) Do relending and onlending arrangements appear to be reasonable?	<input type="checkbox"/>	<input type="checkbox"/>
(c) Does the FP indicate that adequate counterpart funds will be available in a timely manner?	<input type="checkbox"/>	<input type="checkbox"/>
(d) Are local cost financing arrangements in line with ADB policy (OM11)?	<input type="checkbox"/>	<input type="checkbox"/>
7.6.4 Executing Agencies and Implementing Agencies	Yes	No
(a) Has the past financial performance of the EA/IA been analyzed?	<input type="checkbox"/>	<input type="checkbox"/>
(b) Has a ratio analysis of the EA/IA financial statements been conducted?	<input type="checkbox"/>	<input type="checkbox"/>
(c) Are the financial management capabilities of EA and IA adequate?	<input type="checkbox"/>	<input type="checkbox"/>
(d) Are properly trained and qualified staff in place to manage finances?	<input type="checkbox"/>	<input type="checkbox"/>
(e) If there are other ongoing operations, have financial details been provided and are these reasonable?	<input type="checkbox"/>	<input type="checkbox"/>
(f) Have EA/IA budgets and forecasts (excluding the project) been provided?	<input type="checkbox"/>	<input type="checkbox"/>

(g)	Does the EA/IA have processes in place to prepare or update budgets and forecasts on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>
(h)	Where the EA/IA is not a government department, state government body or local government body; is its capital adequate to support operations and to execute or implement the project?	<input type="checkbox"/>	<input type="checkbox"/>
7.6.5	Financial Projections	Yes	No
(a)	Have the assumptions and bases that underlie the financial projections (e.g., cash flows, income, expenses and other financial projections) been provided?	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Are the assumptions that underlie the financial projects reasonable?	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Are provisions adequate (for instance, bad debts, nonrevenue water and power supplies, and technical losses)?	<input type="checkbox"/>	<input type="checkbox"/>
(d)	If the projections were prepared by the financial analyst or by consultants, does the borrower "own" the projections?	<input type="checkbox"/>	<input type="checkbox"/>
7.6.6	Financial Analysis	Yes	No
(a)	Have the detailed FIRR calculations been undertaken in accordance with these Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Are the detailed FIRR calculations reasonable?	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Have the detailed WACC calculations been undertaken in accordance with these Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Are the detailed WACC calculations and assumptions reasonable?	<input type="checkbox"/>	<input type="checkbox"/>
(e)	Does FIRR exceed WACC and, if not, are there reasonable justifications for proceeding with the project?	<input type="checkbox"/>	<input type="checkbox"/>
(f)	Have sensitivity analyses been conducted in accordance with these Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>
7.6.7	Project Justifications	Yes	No
(a)	Is the project financially sustainable?	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Have cost-recovery mechanisms and pricing issues been adequately considered?	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Has an affordability study been conducted on proposed prices (tariffs)?	<input type="checkbox"/>	<input type="checkbox"/>
7.6.8	Accounting and Auditing	Yes	No
(a)	Have arrangements been made to ensure the timely submission of quarterly reports?	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Have actions been taken to select and engage auditors in accordance with these Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>

- | | | |
|---|--------------------------|--------------------------|
| (c) Have arrangements been made to support the timely submission of audited annual reports (within six to nine months) including audit reports on special agreements such as SOEs? | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) If in the past government audits were either not satisfactory or not available, has the appointment of private auditors and funding to cover cost of such appointments been considered? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.6.9 Procurements and Disbursement Arrangements | Yes | No |
| (a) Has adequate attention been given to anticorruption measures? | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Are adequate fund reimbursement procedures in place (in accordance with ADB requirements)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.6.10 Finance-Related Risks | Yes | No |
| (a) Have risks regarding the timely availability of adequate counterpart funds been minimized? | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Have risks regarding the timely availability of adequate funds for operations and maintenance been minimized? | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Have risks regarding the availability of staff to manage financial management activities been minimized? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.6.11 Assurances | Yes | No |
| (a) Have adequate assurances been obtained in relation to measures to counter finance-related risks (see above)? | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Have adequate assurances been obtained that proposed pricing formulas will be implemented? | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Have adequate assurances been obtained that efficiency improvements and capacity building in relation to financial management will be undertaken? | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Have adequate assurances been obtained that financial covenants will be implemented and monitored as agreed? | <input type="checkbox"/> | <input type="checkbox"/> |

7.7. Appraisal Checklist: Non-Revenue-Earning Project

7.7.1.1. Preparation at Headquarters

7.7.1.1.1. Meet with Division Manager and Project Officer to receive briefing on ADB's approach to defining a non-revenue-earning project with respect to the country, borrower, cofinanciers, project and appraisal mission.

7.7.1.1.2. Study and note all positive and negative attributes ascribed to country, sector and similar projects in: (i) the Country Strategy Paper to understand the role that the

project is to be designed to fulfill; (ii) relevant reports on the country profile, institutions to be involved in, and responsible for the project, and where available, the proposed EA; (iii) all reports on project identification and preparation, including forecasts of local and foreign inflation for the country concerned; (iv) relevant reports on country project performance; and (v) all recent reports on ongoing projects in the sector in the country.

7.7.1.2. Initial Steps

7.7.1.2.1. Participate in, or where necessary, arrange initial meetings with counterparts in organizations in the government concerned with the project, including the EA.

7.7.1.2.2. Ensure that all managers and staff to be involved in project planning and implementation have copies of ADB's Handbook for Borrowers on Financial Management and Financial Analysis of Investment Projects, ADB's Loan Disbursement Handbook and ADB's Procurement Handbook.

7.7.1.2.3. Advise on the availability of the web-based Financial Management Guidelines.

7.7.1.3. The Institutional Environment

7.7.1.3.1. Confirm/modify information obtained through readings (see paragraph 7.7.1.1.2 above).

7.7.1.3.2. Determine current organizational and management linkages of central government, state government (where applicable) and sector institutions to be involved in financial aspects of project design, development, implementation, and operation.

7.7.1.3.3. Determine current and/or proposed organizational and financial aspects of the management structure of the existing or proposed EA to be involved in project design, development, implementation and operation.

7.7.1.3.4. Understand the country's financial sector, the role of the central bank and the banking system, and their potential application to/impact on the project.

7.7.1.3.5. Determine the capability, capacity, and current performance of the accounting and auditing profession in the country, particularly as they will impact on the project.

7.7.1.3.6. Determine the capability, capacity, and current performance of the government audit service, particularly as they will impact on the project.

7.7.1.3.7. Determine the quality of accounting and bookkeeping capability, and training in the existing or proposed EA.

7.7.1.3.8. Determine the capability of the financial manager(s) designated to be responsible for the project.

7.7.1.3.9. Make recommendations for modifications to organizational structures, managements, staffs and training necessary to support the project – share with Project Officer – and, where necessary, prepare an institutional appraisal of the EA to support upgrading of institutional performance.

7.7.1.4. Financial Management Systems

7.7.1.4.1. Taking into account, sections 7.7.1.3.3–7.7.1.3.9, where there exists an ongoing financial management system, accounting and book-keeping systems, computer/data processing systems, and an internal control environment and internal control systems to support the project, form a judgment on the acceptability, or otherwise, of these systems. Examine the following systems to the extent that they are likely to be necessary to support the project:

Planning and budgeting records	Ledgers & journal systems	Cash management
Payroll including HR records	Bank accounts & reconciliations	Asset records
Accounts payable	Equity records	Internal controls
Accounts receivable	Subsidies received	and internal audit
Taxes & duties	Grants/Donations records	Periodic and annual
Inventories	Loans received & repayments	financial statements
Project accounting records	Loans advanced	External auditors' reports
		and opinions

7.7.1.4.2 On the basis of examination in 7.7.1.4.1, determine the nature and form of the accounting standards in use and their likely acceptability to ADB. In the event that they would not be acceptable, define ADB's requirements to counterparts of the EA and the borrower.

7.7.1.4.3 On the basis of examination in 7.7.1.4.1, determine the nature and form of the auditing standards in use and their likely acceptability to ADB. In the event that they would not be acceptable, define ADB's requirements to counterparts of the EA and the borrower.

7.7.1.4.4 In the absence of any of the system elements set out in 7.7.1.4.1, define new or additional system requirements necessary to support the project and advise a timetable to counterparts for their introduction and full operation, including necessary staff additions and training.

7.7.1.5. Definition of Project Cost Requirements

7.7.1.5.1. Review with counterparts and consultants responsible for project design/preparation, the project description and specifications documents in order to understand the likely project components and their related cost elements.

7.7.1.5.2. Although this project is proposed as non-revenue-earning, review with the Project Officer the possibility of introducing a tariff and charges as part of project design, for meeting all or any critical part of the costs of producing products/outputs/sales, etc., ensuring that such a tariff and charges would encourage cost savings that could be proposed as part of the project and meet forecast inflationary factors.

7.7.1.5.3. Where available, use COSTAB software to compile all project costs and procurement documentation.

7.7.1.5.4. Review with counterparts and consultants responsible for project design/preparation the project cost table for comprehensiveness, adequacy of structure/descriptions of base cost line items, including annual foreign and local costs, and annual/periodic expenditures including financial charges during development, where applicable. Ensure that taxes and duties are clearly defined and capable of being measured for exclusion from ADB financing.

7.7.1.5.5. Prepare or obtain a country/sector disbursement profile to judge the likely accuracy of the forecasts of proposed expenditures and ADB disbursements.

7.7.1.5.6. Examine the price contingencies for accuracy with respect to local and foreign costs, including application of appropriate rates of local and foreign inflation.

7.7.1.5.7. Examine the physical contingencies for accuracy with respect to appropriate allowances as prescribed.

7.7.1.5.8. Discuss with Project Officer and, where appropriate, with counterparts, the Financing Plan and disbursement profile to determine the total financing requirements, the amount and timing of receipt of each input of funds requirements, the proposed amount of ADB's proposed total loan/credit proceeds, of receipts from cofinanciers, and from counterpart funds.

7.7.1.6. Preparation of Financial Projections and Draft RRP

7.7.1.6.1. Determine forecast annual operating costs of the EA that is to implement the project only, and incorporate forecast inflation.

7.7.1.6.2. Using the information from 7.7.1.5.3–7.7.1.5.8, prepare projected combined annual income statement for the project period.

7.7.1.6.3. Using the information from 7.7.1.5.3–7.7.1.5.8, compile the Financial Internal Rate of Return (FIRR), with appropriate financial performance indicators for the project and, where appropriate, the EA. Discuss proposed indicators with Project Officer and counterparts, explaining logic of selection and methods of calculation.

7.7.1.6.4. With Project Officer, explain in detail to counterparts the method of compilation and the forecast results of all financial statements at all appropriate levels of concerned institutions and managements with the objective of reaching agreement on the Project Cost Table, the financing plan, the financial projections and any tariffs and charges proposed.

7.7.1.6.5. With the Project Officer, meet with cofinanciers at mutually agreed locations (whenever possible, in the presence of counterparts) to explain the method of compilation and the forecast results of all financial statements at all appropriate levels of concerned institutions and managements with the objective of reaching agreement on the, Project Cost Table, the financing plan, the financial projections, performance indicators and any tariffs and charges proposed.

7.7.1.6.6. Draft the section of the Aide Memoire relating to all financial aspects of the project and discuss with Project Officer. Make any agreed amendments for presentation of complete Aide Memoire to counterparts at appropriate levels.

7.7.1.6.7. Draft paragraphs for inclusion in the financial section of the RRP, and prepare financial appendixes to attach to the RRP. Review with the Project Officer.

7.8. Appraisal Checklist: Revenue-Earning Project

7.8.1.1. Preparation at Headquarters

7.8.1.1.1. Meet with Division Manager and Project Officer to receive briefing on ADB's approach to defining a revenue-earning project with respect to the country, the sector, the project and objectives of the appraisal mission.

7.8.1.1.2. Study and note all positive and negative attributes ascribed to country, sector and similar projects in: (i) the Country Strategy Paper; (ii) relevant reports on the country profile, institutions to be involved in design, authorization, implementation, and operation of the project, particularly where available, the proposed EA, including the Country DSAA (see section 4.2.5), where available; (iii) reports on project identification and preparation. Obtain forecasts of inflation for the country concerned from the Operations Coordination Division; (iv) reports on country and sector project performance; (v) reports issued within the past five years on similar projects in the sector in the country.

7.8.1.2. Initial Steps

7.8.1.2.1. Participate in, or where necessary, arrange meetings with key managers and any counterparts representing managers in the EA to confirm appraisal arrangements/ requirements. Make a judgment on the likely efficiency of the managers and the counterpart(s).

7.8.1.2.2. Participate in, or where necessary, arrange initial meetings with counterparts in all organizations in the government likely to be concerned with project development, to confirm appraisal arrangements/ requirements.

7.8.1.2.3. Ensure all managers and staff to be involved in project planning and implementation have copies of ADB's Handbook for Borrowers on the Financial Management and Financial Analysis of Investment Projects, ADB's Loan Disbursement Handbook and ADB's Procurement Handbook.

7.8.1.2.4. Advise on the availability of the web-based Financial Management Guidelines.

7.8.1.3. The Institutional Environment

7.8.1.3.1. Confirm evidence provided through readings in paragraph 7.8.1.1.2.

7.8.1.3.2. Determine current organizational structure and responsibilities with respect to the project of central government, state government(s) and sector agencies that will be involved in project design, development, implementation and operation, for example, Ministries of Finance and Economy, Industrial Production, Planning and Development, Agriculture, Export Guarantee Agency, etc.

7.8.1.3.3. Determine the likely acceptability to ADB of current and/or proposed organizational and management structure of the EA and/or consultants involved in preparing the project's planning, programming, design, development, implementation and operation.

7.8.1.3.4. Understand the country's financial sector, the role of the central bank and the banking system, and their probable application to/impact on the project.

7.8.1.3.5. Explore current status of positive and negative attributes in paragraph 7.8.1.1.2 above.

7.8.1.3.6. Determine the capability, capacity, and current performance of the country's accounting and auditing profession as it impacts, or will impact, on the EA and on the project (review the Country DSAA, see section 4.2.5, where available).

7.8.1.3.7. Determine the capability, capacity, and current performance of the government auditing profession, particularly the Auditor-General's Office, as it impacts, or will impact, on the EA and on the project.

7.8.1.3.8. Determine the actual, or forecast anticipated, quality of accounting and bookkeeping capability and training in the EA to service the project and EA.

7.8.1.3.9. Determine the capability of the financial managers designated to be responsible for the project, against the background of 7.8.1.3.6 – 7.8.1.3.8.

7.8.1.3.10. Make recommendations for modifications to organizational structures, financial management, accounting /bookkeeping/ inventory management staffs and training necessary to support the project – share with Project Officer – and where necessary, prepare an institutional appraisal of the EA to support upgrading of institutional performance.

7.8.1.4. Financial Management Systems

7.8.1.4.1. Taking into account 7.8.1.3.7 – 7.8.1.3.10 above, where there exists an ongoing financial management system, accounting and bookkeeping systems, computer/data processing systems, and an internal control environment and internal control systems to support the project, form a judgment on the acceptability, or otherwise, of these systems and documentation. Examine the following systems and documentation to the extent that they are likely to be necessary to support the project:

Planning & budgeting records	Bank accounts & reconciliations	Cash management
Payroll including HR records	Records of stock issues & re-purchase	Dividends records
Accounts payable	Investors/Shareholders records	Asset & depreciation records
Accounts receivable	Equity records	Internal controls and internal audit
Taxes & duties	Subsidies received	Periodic and annual financial statements
Inventories	Grants/Donations records	External auditors' reports and opinions
Cost of manufactured goods	Loans received & repayments	
Project accounting records	Loans advanced	
Management and overhead		
Ledgers & journal systems		

7.8.1.4.2. In cases where the EA is a public company owned wholly or in part, by the government, the following two additional matters should be reviewed: (i) Financial clauses of the Articles of Incorporation (or Association) of the Company; and (ii) Minutes of company meetings for the most recent three years (or such other period as may be reasonable) in which financial policy, strategy, decisions, and issues were recorded.

7.8.1.4.3. On the basis of examination in 7.8.1.3.6, 7.8.1.3.8 and 7.8.1.4.1, determine the nature and form of the accounting standards in use and their likely acceptability to ADB. In the event that they would not be acceptable, define ADB's requirements to counterparts of the EA and the borrower (where applicable).

7.8.1.4.4. On the basis of examination in paragraphs 7.8.1.3.6, 7.8.1.3.7 and 7.8.1.4.1, determine the nature and form of the auditing standards in use and their likely acceptability to ADB. In the event that they would not be acceptable, define ADB's requirements to counterparts of the EA, the existing auditing firm (if it is to be retained for the project) and the borrower (where applicable).

7.8.1.4.5. In the absence of any, or all, of the system elements set out in 7.8.1.4.1 above, define new or additional system requirements and documentation necessary to support the project and advise a timetable to counterparts for their introduction and full operation, including necessary staff additions and training.

7.8.1.5. Definition of Project Cost Requirements

7.8.1.5.1. Review with counterparts and consultants responsible for project design/preparation, the project description and specifications documents in order to understand the cost of each project component (new assets) and their likely foreign and local costs for each year of implementation, the total cost of each asset for depreciation purposes (including financial charges during development) and the forecast date(s) of their commissioning.

7.8.1.5.2. Review with the Project Officer the likely adequacy and suitability of the existing tariff and charges, or any new tariff and charges developed as part of project design, for products/ outputs/ sales, etc. ensuring, where necessary, that the tariffs and charges reflect cost savings proposed as part of the project and take account of forecast inflationary factors.

7.8.1.5.3. Where available, use COSTAB software to compile all project costs and procurement documentation.

7.8.1.5.4. Review with counterparts and consultants responsible for project design/preparation the project cost table for comprehensiveness, adequacy of structure/descriptions of base cost line items, and annual/ periodic expenditures including financial charges during development, where applicable. Ensure that taxes and duties are clearly defined and capable of being easily defined for exclusion from ADB financing.

7.8.1.5.5. Use a country/sector disbursement profile to judge the likely accuracy of the forecasts of proposed expenditures and ADB disbursements.

7.8.1.5.6. Examine the physical contingencies and their legitimacy.

7.8.1.5.7. Examine the price contingencies for accuracy with respect to local and foreign costs, including application of appropriate rates of local and foreign inflation.

7.8.1.5.8. Discuss with Project Officer and, where appropriate, with counterparts, the Financing Plan and disbursement profiles to determine the total financing requirements, the amount and timing of receipt of each input of funds requirements, the proposed amount of ADB's proposed total loan proceeds, of receipts from cofinanciers, from internal funds, and from government counterpart funds (where applicable).

7.8.1.6. *Financial Projections for an Ongoing Production Operation*

7.8.1.6.1. Determine actual and forecast physical output statistics and losses (industrial/agricultural products/ electricity/ water/ telecommunications, etc.) for at least two completed fiscal years prior to the start of project implementation, for the period of project implementation, and for at least three years of operation.

7.8.1.6.2. In consultation with the Project Officer and counterparts, as appropriate, apply the tariff and charges in section 7.8.1.5 to provide a revenue stream during implementation and thereafter.

7.8.1.6.3. In consultation with the Project Officer and counterparts, as appropriate, determine a commissioning schedule for the components of the project with related costs, and prepare a depreciation schedule for the assets to be provided by the project.

7.8.1.6.4. In consultation with the Project Officer and counterparts, as appropriate, if it will be necessary to revalue assets periodically through the implementation period and thereafter to reflect the impact of severe inflation, prepare a forecast depreciation schedule with and without the assets in 7.8.1.5.1.

7.8.1.6.5. In consultation with the Project Officer and counterparts, as appropriate, prepare the EA's operating costs with and without the project for at least two completed fiscal years prior to the start of project implementation, for the period of project implementation, and for at least three years of operation and incorporate inflation as forecast in 7.8.1.5.7.

7.8.1.6.6. Prepare schedules of interest payments due to lenders

7.8.1.6.7. Prepare schedules of loan repayments to lenders

7.8.1.6.8. Using the results of 7.8.1.6.1–7.8.1.6.7, compile an income statement for at least two completed fiscal years prior to the start of project implementation, for the period of project implementation, and for at least three years of operation.

7.8.1.6.9. For an ongoing operation – using the projected annual investments from 7.8.1.5.1, disbursements from 7.8.1.5.8, the schedules in 7.8.1.6.6–7.8.1.6.7, and the results from the Income statements in 7.8.1.6.8 – prepare a cash flow statement for at least two completed fiscal years prior to the start of project implementation, for the period of project implementation, and for at least three years of operation.

7.8.1.6.10. For an ongoing operation – on the basis of audited annual financial statements for two fiscal years prior to implementation and the results of the Income statement in 7.8.1.6.8 and the Cash Flow Statements in 7.8.1.6.9, prepare balance sheet for the period of implementation and three years of operation.

7.8.1.7. *Financial Projections for a New Production Operation*

7.8.1.7.1. Determine forecast physical output statistics and losses (industrial/agricultural products/ electricity/ water/ telecommunications, etc.) for the period of project implementation (if any), and for at least five years of operation.

7.8.1.7.2. In consultation with the Project Officer and counterparts, as appropriate, apply the tariffs and charges in 7.8.1.5.2 to provide a revenue stream during implementation and thereafter.

7.8.1.7.3. In consultation with the Project Officer and counterparts, as appropriate, determine a commissioning schedule for the components of the project with related costs, and prepare a depreciation schedule for the assets to be provided by the project.

7.8.1.7.4. In consultation with the Project Officer and counterparts, as appropriate, if it will be necessary to revalue assets periodically through the implementation period and thereafter to reflect the impact of severe inflation, prepare a forecast depreciation schedule.

7.8.1.7.5. In consultation with the Project Officer and counterparts, as appropriate, prepare the EA's operating costs for the period of project implementation, and for at least five years of operation and incorporate inflation as forecast in 7.8.1.5.7.

7.8.1.7.6. Prepare schedules of interest payments due to lenders.

7.8.1.7.7. Prepare schedules of loan repayments to lenders.

7.8.1.7.8. Using the results of 7.8.1.7.1–7.8.1.7.7 above compile an Income statement for the period of project implementation, and for at least five years of operation.

7.8.1.7.9. Using the projected annual investments from 7.8.1.5.1, disbursements from 7.8.1.5.8, the schedules in 7.8.1.7.6–7.8.1.7.7, and the results from the income statement in 7.8.1.7.8 – prepare a cash flow statement for the period of project implementation, and for at least five years of operation.

7.8.1.7.10. On the basis of the results of the income statements in 7.8.1.7.8 and the Cash Flow Statements in 7.8.1.7.9, prepare balance sheets for the period of implementation and five years of operation.

7.8.1.8. For All Projects

7.8.1.8.1. Using the data from sections 7.8.1.6 and 7.8.1.7, compile appropriate financial performance indicators including the Financial Internal Rate of Return (FIRR) for the project and, where appropriate, the EA. Discuss proposed indicators with Project Officer and counterparts, explaining logic of selection and methods of calculation.

7.8.1.8.2. With Project Officer, explain in detail to counterparts the method of compilation and the forecast results of all financial statements at all appropriate levels of concerned institutions and managements with the objective of reaching agreement on the Project Cost Table, the financing plan, the financial projections and tariffs and charges proposed.

7.8.1.8.3. With the Project Officer, meet with cofinanciers at mutually agreed locations (if possible in the presence of counterparts) to explain the method of compilation and the forecast results of all financial statements at all appropriate levels of concerned

institutions and managements with the objective of reaching agreement on the Project Cost Table, the financing plan, the financial projections and tariffs and charges proposed.

7.8.1.8.4. Draft the section of the Aide Memoire relating to all financial aspects of the project and discuss with Project Officer. Make any agreed amendments for presentation of complete Aide Memoire to counterparts at appropriate levels.

7.8.1.8.5. Draft paragraphs for inclusion in the financial section of the RRP, and prepare financial appendixes to attach to the RRP. Review with the Project Officer.

7.9. Appraisal Checklist: Private Sector Project

7.9.1.1. Preparation at Headquarters

7.9.1.1.1. Meet with Division Manager and Project Officer to receive briefing on ADB's approach to funding private sector projects in the country, the borrower, use of cofinanciers, the project objectives and those of the appraisal mission.

7.9.1.1.2. Study and note all positive and negative attributes ascribed to country, sector and similar projects in: (i) the Country Strategy Paper to understand the role that the project is to be designed to fulfill; (ii) relevant reports on the country profile, institutions to be involved in, and responsible for the project, and where available, the proposed private sector company; (iii) reports on project identification and preparation, including forecasts of local and foreign inflation for the country concerned; (iv) relevant reports on country and sector project performance; and (v) relevant reports on current projects in the sector in the country.

7.9.1.2. Initial Steps

7.9.1.3.1. Participate in, or where necessary, arrange initial meetings with counterparts in all concerned organizations in the government concerned with the project, including the existing or a proposed company.

7.9.1.3.2. Ensure all managers and staff to be involved in project planning and implementation have copies of ADB's Handbook for Borrowers on Financial Management and Financial Analysis of Investment Projects, ADB's Loan Disbursement Handbook and ADB's Procurement Handbook.

7.9.1.3.3. Advise on the availability of the web-based Financial Management Guidelines.

7.9.1.3. The Institutional Environment

7.9.1.3.1. Confirm/modify information obtained through readings and reviews in 7.9.1.1.2.

7.9.1.3.2. Determine current central and state government and sector agencies that will need to be involved in project design, implementation and operation, for example, Ministries of Finance and Economy, Industrial Production, Planning and Development, Agriculture, Export Guarantee Agency, etc.

7.9.1.3.3. Determine the likely capability and capacity to deliver the project by the current organizational and management structure of the company's central management units/ departments and operating units/ departments that are/ will be involved in project design, implementation and operation.

7.9.1.3.4. Study and understand the country's financial sector, the role of the central bank and the banking system, and their probable contribution to/application to/impact on, the project, with particular regard to provision of funds and foreign exchange requirements.

7.9.1.3.5. Determine the capability, capacity and current performance of the country's accounting and auditing profession to meet ADB's requirements for use of International Accounting Standards (IASs) for financial reporting by the EA, and auditing using International Standards on Auditing (ISAs).³¹

7.9.1.3.6. Determine the quality of accounting and bookkeeping training in the EA and their ability to apply IAS when reporting to ADB.³²

7.9.1.3.7. Determine the capability and integrity of the financial managers designated to be responsible for the financial management of the project, through due diligence.

7.9.1.3.8. Make judgments on required modifications to organizational structures, financial management positions, accounting, bookkeeping and inventory maintenance staffs and their training necessary to support the project – share with Project Officer – Recommend any necessary upgrading, if necessary, recommending an appraisal element to support funding for this purpose.

³¹ Financial Analysts have discretion to agree alternative arrangements (see paragraph 2.4.3)

³² Financial Analysts have discretion to agree alternative arrangements (see paragraph 2.4.3)

7.9.1.4. Financial Management Systems

7.9.1.4.1. Taking into account section 7.9.1.3, where there exists an ongoing financial management system, accounting and bookkeeping systems, computer/data processing systems, and an internal control environment and internal control systems to support the project, form a judgment on the acceptability, or otherwise, of these systems. Examine the following systems to the extent that they are likely to be necessary to support the project:

<p>Financial clauses of the Articles of Incorporation (or Association) of the company</p> <p>Minutes of company meetings for the most recent three years (or such other period as may be reasonable) in which financial policy, strategy, decisions and issues were recorded</p> <p>Planning & budgeting records</p> <p>Payroll including HR records</p> <p>Accounts payable</p> <p>Accounts receivable</p> <p>Taxes & duties</p> <p>Inventories</p> <p>Cost of manufactured goods & services</p> <p>Project accounting records</p> <p>Management and overhead</p>	<p>Ledgers & journal systems</p> <p>Bank accounts & reconciliations</p> <p>Records of stock issues & repurchase</p> <p>Investors/Shareholders records</p> <p>Equity records</p> <p>Subsidies received</p> <p>Grants/Donations records</p> <p>Loans received & repayments</p> <p>Loans advanced with repayments</p> <p>Cash management</p> <p>Dividends records</p> <p>Asset & depreciation records</p> <p>Internal controls and internal audit</p> <p>Periodic and annual financial statements</p> <p>External auditors' reports and opinions for past three years</p>
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7.9.1.4.2. On the basis of examination in 7.9.1.4.1, determine the nature and form of the accounting standards in use and their likely acceptability to ADB. In the event that they would not be acceptable, define ADB's requirements with respect to IASs and the national GAAP to counterparts of the company and the borrower.³³

7.9.1.4.3. On the basis of examination in 7.9.1.4.1, determine the nature and form of the auditing standards in use and their likely acceptability to ADB. In the event that they would not be acceptable, define ADB's requirements form use of ISAs to counterparts of the company and the borrower.³⁴

7.9.1.4.4. In the absence of any of the system and documentation elements set out in 7.9.1.4.1, define new or additional system and documentation requirements necessary to support the project and advise a timetable to counterparts for their introduction and full operation, including necessary staff additions and training.

³³ Financial Analysts have discretion to agree alternative arrangements (see paragraph 2.4.3)

³⁴ Financial Analysts have discretion to agree alternative arrangements (see paragraph 2.4.3)

7.9.1.5. Definition of Project Cost Requirements

7.9.1.5.1. Review with counterparts and consultants responsible for project design/preparation the project description and specification documents in order to understand the cost of each project component (new assets) and their likely foreign and local costs for each year of implementation, the total cost of each asset for depreciation purposes (including financial charges during development), and the forecast date(s) of their commissioning.

7.9.1.5.2. Review with the Project Officer the likely adequacy and suitability of the existing tariff and charges or the new (proposed) tariff and charges developed as part of project design, for products/outputs/sales, etc. ensuring where necessary that the tariffs and charges reflect both cost savings proposed as part of the project and impact of forecast inflationary factors.

7.9.1.5.3. Where available, use COSTAB software to compile all project costs and procurement documentation.

7.9.1.5.4. Review with counterparts and consultants responsible for project design/preparation the project cost table for comprehensiveness, adequacy of structure/descriptions of base cost line items, and annual/ periodic foreign and local expenditures including financial charges during development, where applicable. Ensure that taxes and duties are clearly defined and capable of being easily defined for exclusion from ADB financing.

7.9.1.5.5. Use a country/sector disbursement profile to judge the likely accuracy of the forecasts of proposed expenditures and ADB disbursements.

7.9.1.5.6. Examine the physical contingencies and their legitimacy.

7.9.1.5.7. Examine the price contingencies for accuracy with respect to local and foreign costs, including application of appropriate rates of local and foreign inflation.

7.9.1.5.8. Subject to any recommendations arising from section 7.9.1.8, with respect to the determination of private sector funding, discuss with Project Officer and, where appropriate, with counterparts, the financing plan and disbursement profiles to determine the total financing requirements, the amount and timing of receipt of each input of funds requirements, the proposed amount of ADB's proposed total loan/credit proceeds, of receipts from cofinanciers, from internal sources, and government counterpart funds.

7.9.1.6. Preparing Projections for Ongoing Production Lending Operation

7.9.1.6.1. Determine actual and forecast physical output statistics and losses (industrial/ agricultural products/ electricity/ water/ telecommunications, etc.) for at least two completed fiscal years prior to the start of project implementation, for the period of project implementation, and for at least three years of operation.

7.9.1.6.2. In consultation with the Project Officer and counterparts, as appropriate, apply the tariff and charges and all relevant financial information from 7.9.1.5.2 to 7.9.1.6.1 to provide a revenue stream during implementation and for at least three years following commissioning.

7.9.1.6.3. In consultation with the Project Officer and counterparts, as appropriate, if it will be necessary to revalue assets periodically through the implementation period and thereafter to reflect the impact of severe inflation, prepare a forecast depreciation schedule for all assets, and those from 7.9.1.5.1, and (ii) without the assets in 7.9.1.5.1.

7.9.1.6.4. In consultation with the Project Officer and counterparts, as appropriate, forecast the company's operating costs with and without the project for at least two completed fiscal years prior to the start of project implementation, for the period of project implementation, and for at least three years of operation and incorporate the impact of inflation as forecast in 7.9.1.5.7.

7.9.1.6.5. Prepare schedules of interest payments due to existing and proposed lenders for the new project (including appropriate treatment of financial charges during development).

7.9.1.6.6. Prepare schedules of loan repayments to existing and proposed lenders for the new project.

7.9.1.6.7. Using the projected annual investments from 7.9.1.5.1, disbursements from 7.9.1.5.8, and the results of 7.9.1.6.1–7.9.1.6.5, compile an income statement for at least two completed fiscal years prior to the start of project implementation, for the period of project implementation, and for at least three years of operation.

7.9.1.6.8. On the basis of audited annual financial statements for two fiscal years prior to implementation, the schedules in 7.9.1.6.5–7.9.1.6.6, and the results of the income statement in 7.9.1.6.7, prepare a cash flow statement for the period of implementation and three years of operation.

7.9.1.6.9. On the basis of the Income Statement in 7.9.1.6.7 and the Cash Flow Statement in 7.9.1.6.8, prepare balance sheets for the period of implementation and three years of operation.

7.9.1.7. Preparing Projections for a New Production Lending Operation

7.9.1.7.1. Obtain from counterparts and consultants the forecast physical output statistics and losses (industrial/ agricultural products/ electricity/ water/ telecommunications, etc.) from the start of commissioning of assets to the conclusion of the period of project implementation, and for at least five years of full operation.

7.9.1.7.2. In consultation with the Project Officer and counterparts, as appropriate, apply the tariff and charges in 7.9.1.5.2 to provide a revenue stream (if any) during implementation and thereafter in operation using 7.9.1.6.7.

7.9.1.7.3. In consultation with the Project Officer and counterparts, as appropriate, if it will be necessary to revalue assets periodically through the implementation period and thereafter to reflect the impact of severe inflation, prepare a forecast asset revaluation and depreciation schedule.

7.9.1.7.4. In consultation with the Project Officer and counterparts, as appropriate, forecast the company's operating costs for the period of project implementation, and for at least five years of operation and incorporate inflation as forecast in 7.9.1.5.7.

7.9.1.7.5. Prepare schedules of interest payments due to lenders, (including appropriate treatment of financial charges during development).

7.9.1.7.6. Prepare schedules of loan repayments to lenders.

7.9.1.7.7. Using the projected annual investments from 7.9.1.5.1, disbursements from 7.9.1.5.8, and the financial results of 7.9.1.7.1–7.9.1.7.5, prepare an Income statement for at least two completed fiscal years prior to the start of project implementation, for the period of project implementation, and for at least five years of operation.

7.9.1.7.8. Using the projected annual investments from 7.9.1.5.1, disbursements from 7.9.1.5.8, the schedules in 7.9.1.7.5–7.9.1.7.6, and the results from the Income statements in 7.9.1.7.7 – prepare a cash flow statement for the period of project implementation, and for at least five years of operation.

7.9.1.7.9. On the basis of the results of the Income statements in 7.9.1.7.7 and the Cash Flow Statements in 7.9.1.7.8, prepare balance sheets for the period of implementation and five years of operation.

7.9.1.8. *Financing Plan Involving Private Sector Funding*

7.9.1.8.1. Determine all sources of funds forecast to be required external to the company's own resources, from the private sector, governmental institutions (where appropriate) and ADB.

7.9.1.8.2. Where loans are proposed from private sources, including banks and finance houses, check the terms and conditions proposed by the potential lenders and confirm the capacity of the company to meet the future obligations against the background of its forecast costs, sales and revenue streams and capital funding commitments. In particular check the security offered by the company, particularly any specific assets, which if lost due to default to a lender, would seriously impair earnings.

7.9.1.8.3. Where the company is proposing to attract equity contributions as a private company, check to validity of its proposals and of the offers made by potential stakeholders.

7.9.1.8.4. Where a company is, or intends to be, a public company and is proposing to seek an initial public offering on a stock market/exchange, review all documentation and correspondence relating to the proposed flotation. In particular, review the auditor's report and ensure the report was made in accordance with ISAs. Any concerns should be expressed in a meeting with the auditors and the company counterparts to obtain full assurances as to the reliability of the proposed flotation documentation. Discuss with the concerned financial advisers to the company who are managing the flotation, (and if necessary, with the stock exchange managers) the prospects for the flotation, and in particular, the realism of the timing of entry into the market and the nature/class of the stock/shares to be issued.

7.9.1.8.5. Where a company is seeking to issue additional capital, if necessary up to its limit of authorized capital, examine the records of stock/shares management and related auditor's reports for due performance. Review the effective use of the existing capital issue, particularly the return on capital issued and dividends paid to stakeholders. Review the proposed terms of the proposed issue including the class of share(s), and particularly the issue price(s) for realism and potential to meet the financial needs of the company for the period of the project.

7.9.1.9. Defining Financial Performance Indicators and Reviewing Projections

7.9.1.9.1. On the basis of generated data as a result of 7.9.1.6 (for an ongoing operation), 7.9.1.7 (for a new production operation) and 7.9.1.8, compile the FIRR and appropriate financial performance indicators for the project and the company. Discuss proposed indicators with Project Officer and counterparts, explaining logic of selection and methods of calculation.

7.9.1.9.2. With Project Officer, explain in detail to counterparts the method of compilation and the forecast results of all financial statements at all appropriate levels of concerned institutions and management with the objective of reaching agreement on the project cost table, the financing plan, the financial statements containing the financial projections, and any tariffs and charges proposed.

7.9.1.9.3. With the Project Officer, meet with cofinanciers at mutually agreed locations (whenever possible in the presence of counterparts) to explain the method of compilation and the forecast results of all financial statements at all appropriate levels of concerned institutions and managements with the objective of reaching agreement on the project cost table, the financing plan, the financial projections, financial performance indicators, and tariffs and charges proposed.

7.9.1.9.4. Draft the section of the Aide Memoire relating to all financial aspects of the project and discuss with Project Officer. Make any agreed amendments for presentation of complete Aide Memoire to counterparts at appropriate levels.

7.9.1.9.5. Draft paragraphs for inclusion in the financial section of the RRP and prepare financial appendixes to attach to the RRP. Review with the Project Officer.

7.10. Appraisal Checklist: Financial Institution

7.10.1. Financial institutions (FIs) comprise a wide range of institutions, including Apex institutions that service one or more FIs in a country. FIs may provide services to one or more sectors in a country (agriculture, various categories of industry, etc.), including support to microfinance organizations. The latter may also receive support from the banking sector in a country, with or without FI support. Therefore the generic checklist that follows should be used with caution and appropriately modified to address the nature and form of the FI that is under appraisal.

7.10.1.1. Preparation at Headquarters

7.10.1.1.1. Meet with Division Manager and Project Officer to receive briefing on ADB's approach to funding FIs in the country, the sector (e.g., agriculture, industry, etc), the objectives of the project and of the appraisal mission.

7.10.1.1.2. Study and note all positive and negative attributes ascribed to country, sector and similar projects in: (i) the Country Strategy Paper to understand the role that the project is to be designed to fulfill; (ii) relevant reports on the country profile, institutions to be involved in design, authorization, implementation, and operation of the project, particularly where available, the proposed FI; (iii) all reports on project identification and preparation; (iv) all relevant reports on country and sector project performance; (v) all reports issued within the past five years on similar FI projects in the country. Review credit-rating agency publications to determine if the FI being appraised has been assigned a credit rating.

7.10.1.2. Initial Steps

7.10.1.2.1. Participate in, or where necessary, arrange meetings with key managers and any counterparts representing managers in the FI to confirm appraisal arrangements/ requirements. Make a judgment on the likely efficiency of the managers and the counterparts.

7.10.1.2.2. Participate in, or where necessary, arrange initial meetings with counterparts in all organizations in the government likely to be concerned with project development, to confirm appraisal arrangements/ requirements. The range of the organizations will depend on whether or not the FI is state-owned or private sector. Organizations may include the Central Bank, Ministry of Economy, Ministry of Finance, sector ministries (Agriculture, Industry), Ministry of Trade and Industries, etc. The likely credit rating for the concerned FI should be determined through these discussions (where the concerned FI does not have a published credit rating).

7.10.1.2.3. Ensure all managers and staff to be involved in project planning and implementation have copies of ADB's Handbook for Borrowers on Financial Management and Financial Analysis of Investment Projects, ADB's Loan Disbursement Handbook and ADB's Procurement Handbook.

7.10.1.2.4. Advise on the availability of the web-based Financial Management Guidelines.

7.10.1.3. The Institutional Environment

7.10.1.3.1. Confirm evidence provided through readings in 7.10.1.2 above.

7.10.1.3.2. Determine current organizational structure and management position responsibilities, with respect to the FI and the project, of any central government, state government, and sector agencies that will be involved in project design, development, implementation and operation (for example, Central Bank, Ministries of Finance and Economy, Industrial Production, Planning and Development, Agriculture, Export Guarantee Agency, etc).

7.10.1.3.3. Determine the likely acceptability to ADB of current and/or proposed organizational and management structure of the FI and/or consultants involved in preparing the project's planning, programming, design, development, implementation and operation.

7.10.1.3.4. Understand the country's financial sector, the role of the central bank and the banking system, and their probable application to/impact on the FI and the project.

7.10.1.3.5. Understand the role that the FI plays within the financial sector; for example, is it an apex institution serving one or more FIs? Is it a microfinance institution serving a specific small sectoral or regional/ local group of clients? Is it a narrowly focused operation for a subsector such as textiles?

7.10.1.3.6. Determine the capability, capacity and current performance of the country's accounting and auditing profession as it impacts, or will impact, on the FI and on the project.

7.10.1.3.7. In countries where the government audit service is required to audit FI activities and financial statements, determine the capability, capacity and current performance of the government auditing profession, particularly the Auditor-General's Office or equivalent, as it impacts, or will impact, on the FI and on the project.

7.10.1.3.8. Determine the actual, or forecast anticipated, quality of accounting and bookkeeping capability and training in the FI to service the FI and the project.

7.10.1.3.9. Determine the capability of the financial manager(s) designated to be responsible for the project.

7.10.1.3.10. Make judgments as to required modifications to the FI's organizational structures, lending operations, cash management, risk management, financial accounting/

bookkeeping/ management and staffs, and training necessary to support the project – share with Project Officer – and where appropriate recommend for inclusion as a component in the project for appraisal.

7.10.1.4. Management Policies and Systems

7.10.1.4.1. Form a judgment on the acceptability, or otherwise of the lending operations systems, cash management systems, risk management systems, financial accounting system, general accounting and book-keeping systems, computer/data processing systems, and the internal control environment and internal control systems to support the FI and the project, including examining examples of all relevant documentation.

7.10.1.4.2. Examine the following policies, systems and documentation to the extent that they are likely to be necessary to support the FI and the project:

1. Soundness and Clarity of Management Policy

Check points	Specific sample questions
a. Soundness, rationality, and integrity of management policy <i>Has management established a sound and rational policy (short- and long-term strategies) with full consideration given to current and future management conditions?</i>	<ul style="list-style-type: none"> • When drawing up management policy, does the management take into consideration soundness, rationality, and feasibility? • Is the management policy integrated?
b. Clarity and permeability of management policy <i>Is management policy clear and well understood, and does it function well?</i>	<ul style="list-style-type: none"> • Is the management policy clear with respect to criteria for action by each department? • Is the policy well understood throughout the entire organization, and does it function well? • Does the FI compile a medium- and long-term business plan (e.g., every 3-5 years)? • Does the FI compile a business plan (annually or semi-annually)? • Does the department in charge of management planning regularly monitor the level of accomplishment and make necessary adjustments?

 2. Permeability of Risk Management Policy

Check points	Specific sample questions
a. Understanding of risk management <i>Does the management accurately recognize the types of risk and risk exposure inherent in the bank's portfolio and understand the method of risk management, and has it encouraged the FI to establish full awareness of the importance of risk control throughout the FI?</i>	<ul style="list-style-type: none"> • Does the management have high professional moral standards and make efforts to establish awareness of the importance of internal controls among employees? • Does the management recognize internal and external factors constituting potential risks to the FI, and is the management aware of the different types and degrees of risk and risk exposure inherent in these factors? • Does the management recognize different risk management methods according to the types of risk and risk exposure? • Does the management set limits to the acceptable amount or degree of risks inherent in the FI and adequately instruct relevant sections?
b. Basic strategy for risk management <i>Is the management actively involved in drawing up strategies and establishing the framework for risk management giving due consideration to the balance between various risks to the FI's capital and also the strategic importance of its risk-taking?</i>	<ul style="list-style-type: none"> • Is the management clearly aware of its responsibility for drawing up appropriate and adequate risk management policy? • Does the board of directors decide basic policy vis-à-vis risk-taking and risk control giving due consideration to the balance between various risks to the FI's capital as well as each business operation? • Does the management regularly check the effectiveness of its risk management system? • Does the management possess the necessary framework, system, and procedures for identifying, monitoring, and controlling various risks? • Does the management aim to build a comprehensive risk management system on an institution-wide basis?
c. Diversification of risks <i>Does the FI diversify risks in the operation of its various businesses?</i>	<ul style="list-style-type: none"> • Is the FI aware of the necessity of diversifying fund-raising sources and investment vehicles? • Does the FI have in place an organization and operational framework that further emphasizes the importance of risk management rules and regulations such as limit on exposure to a single borrower? • Does the FI avoid excessive dependency on a specific counter-party in its business operation? • Is it possible to monitor risks so as to detect any mal-distribution?

Check points	Specific sample questions
<p>d. Countermeasures against payment failure of other FIs <i>Does the management understand the effects of payment failure by other FIs and resulting instability of the financial system, and have in place appropriate countermeasures?</i></p>	<ul style="list-style-type: none"> • Does the FI have in place countermeasures against payment failure by other FIs or resulting financial system instability?
<p>3. Internal Controls: Organization, Delegation of Authority, and Reporting System</p>	
Check points	Specific sample questions
<p>a. Organization <i>Is the FI adapting its organization so as to strengthen the risk management system and to implement flexible countermeasures to meet changes in the financial environment?</i></p>	<ul style="list-style-type: none"> • Is the FI adapting its organization and staff allocation so as to strengthen the risk management system? • Is the burden of responsibility regarding business operations and risk management clearly defined? • Does the FI have in place a system that can control risk exposure while responding to economic change by utilizing research department data? • Does the FI have in place an internal control system capable of swiftly and adequately dealing with newly recognized risks arising from changes in the environment, etc.? • Is the FI aware of the necessity for organizational reform in line with changes in the environment, etc., and is there a department responsible for planning and implementing measures in response to such changes? • Does the institution-wide risk management section regularly assess the effectiveness of the FI's overall risk control system?
<p>b. Separation of responsibilities <i>Are the framework and procedures for decision-making clarified? Are delegation of authority and allocation of responsibilities conducted appropriately from the standpoint of securing a double-checkingsystem and avoiding conflict of interest? Are these procedures clearly stipulated in the internal rules for delegation of authority?</i></p>	<ul style="list-style-type: none"> • Are internal rules for the delegation of authority rational from the standpoint of securing double-checking of operations and risk control in line with business expansion? • Has the FI confirmed that there is no excessive concentration of authority nor extreme delegation of authority to subordinates? • Does the FI have in place a framework where monitoring and evaluation of major risks are conducted by a specializing section independent from the business promotion department?

Check points	Specific sample questions
	<ul style="list-style-type: none"> • Are risk management responsibilities clearly defined among the board of directors, ALM committee, directors in charge, and department heads? • Does the department head keep to the unavoidable minimum the range of duties where a sufficient double-checking system cannot be applied, and does the FI have in place a system for close monitoring?
<p>c. Reporting of business information <i>Does the FI have in place an appropriate reporting system by which the management can receive valuable information on business operations and risk management? Are decisions made by the management clearly understood by the entire organization?</i></p>	<ul style="list-style-type: none"> • Does the FI have in place an appropriate reporting system by which directors in charge and the board of directors receive information on business operations and risk management without undue delay? • Does the FI have a consistent reporting format, giving due consideration to easy comprehension and coherency of contents? • Are decisions made by directors in charge and the board of directors adequately communicated to, and understood by, concerned sections (including domestic and overseas branches)? • Does the FI have in place a regular reporting system to senior officers and management regarding risk management?

4. Staff Recruitment and Training

Check points	Specific sample questions
<p>a. Staff recruitment <i>Does the FI recruit staff with appropriate experience, skill levels, and degree of expertise to undertake specialized business operations?</i></p>	<ul style="list-style-type: none"> • Does the FI recruit staff with appropriate experience, skill levels, and degree of expertise to undertake specialized business operations, in particular, those relating to risk management? • Do staff members actively take part in business operations in line with their position and responsibilities? • Does the FI recruit staff based on an employment plan?
<p>b. Training <i>Does management have a clear staff-training policy?</i></p>	<ul style="list-style-type: none"> • Does the on-the-job training (OJT) program function adequately? • Does the FI have training programs according to qualifications and job description? • Does the FI revise training programs in accordance with changes in business operation and sophistication of risk management?

 5. Internal Audit

Check points	Specific sample questions
a. Audit system <i>Does the FI conduct effective internal audits (headquarters audit and in-house audit) to enhance its risk management system and check the thoroughness of internal rules?</i>	<ul style="list-style-type: none"> • Are the frequency, checkpoints, and scope of internal audits adequate? • Does the internal audit section/department have auditors with expertise in each business area, and are they able to effectively audit the FI's overall operation? • Does the internal audit section/department have access to all relevant documents and vouchers? • Does the FI conduct regular internal audits of all departments including headquarters and of all operations excluding those that are considered customarily exempted from auditing? • Is the internal audit section/department completely independent from other sections/departments, and does it directly report to the management?
b. Follow-up of audit <i>Does the management give prompt and adequate attention to audit results, and take appropriate measures if problems are detected?</i>	<ul style="list-style-type: none"> • Are internal audit results reported to the management promptly and accurately? • Is information useful for improvement of operations regularly passed on to concerned departments such as the operations planning department? • Does the internal audit section/department take the initiative in directing improvement measures such as the revision of internal rules in order to prevent the reoccurrence of problems? • Does the management appropriately monitor whether improvement measures directed to sections/departments are carried out?

 6. Profit and Loss Management

Check points	Specific sample questions
a. Monitoring of profit/loss <i>Do the management and individual departments within the organization monitor profit/loss while considering the balance between risk and return?</i>	<ul style="list-style-type: none"> • Does a specialized department (e.g., the financial department) monitor profit/loss from various viewpoints such as profit by customer and branch, and on a consolidated basis? • Does each department manage profit/loss bearing in mind the allocation of indirect costs? • Is due consideration given to risk profiles when assessing and determining profit/loss conditions? • Is there a computerized support system for profit/loss management (e.g., cost accounting of deposits and lending)?

Check points	Specific sample questions
<p>b. Distribution of management resources taking into account risk and return</p> <p><i>Is due consideration given to the balance between risk and return, and between risk and the FI's capital when distributing management resources to each department?</i></p>	<ul style="list-style-type: none"> • Does the FI thoroughly assess capital and other resources before embarking on a new business? • Does the management appropriately decide the resources distribution policy based on regular profit/loss reports? • Are limits on risk exposure set for each department taking into consideration the FI's capital?
<p>c. Rational pricing</p> <p><i>Is pricing of deposit and lending rates rational in view of operational/profit planning, market conditions, and risks?</i></p>	<ul style="list-style-type: none"> • Is the differential between actual market rates and pricing of deposit, lending, and derivatives rates within a rational range? • Is delegation of authority relating to pricing clearly defined? • In pricing, is consideration given not only to operations, profit, and market conditions, but also operating cost, credit spread, and embedded option premium for premature cancellation?

7. Risk Management of Affiliated Companies

Check points	Specific sample questions
<p>a. Monitoring of profit/loss on a consolidated basis including affiliated companies</p> <p><i>Is financial performance monitored appropriately on a consolidated basis or on the basis of including affiliated companies (but not consolidating)?</i></p>	<ul style="list-style-type: none"> • Is financial performance monitored on a consolidated basis with full understanding of the business performance of companies subject to consolidated accounting? • Is financial performance monitored appropriately on the basis of including affiliated companies not subject to consolidated accounting taking into consideration degree of business affiliation?
<p>b. Risk management of affiliated companies</p> <p><i>Does the head office fully recognize the risks inherent in domestic and overseas affiliated companies, and monitor them appropriately?</i></p>	<ul style="list-style-type: none"> • Is there a section responsible for monitoring the business operations of affiliated companies (including nonbank financial institutions)? • Is the FI capable of checking unusual activities such as large fund transfers among affiliated companies? • Does the head office fully recognize the risk profiles inherent in overseas affiliated companies? • Does the FI regularly monitor risks to which domestic and overseas affiliated companies are exposed to ensure that they are within a rational range in relation to their financial strength such as capital?

 8. Establishment of Compliance Framework

Check points	Specific sample questions
a. Management understanding of legal compliance and action to achieve it <i>Does the management fully recognize the importance of complying with laws and regulations, market rules, and internal rules? Are they taking the initiative in raising compliance awareness?</i>	<ul style="list-style-type: none"> • Does the management fully understand that insufficient compliance can impair the management base? • Is the top management making efforts to ensure that recognition of the importance of compliance penetrates throughout the FI? • Is the management fully aware which FI operations are most likely to cause problems in terms of compliance? • When starting a new operation, does the management take into consideration of newly arising risks in the area of compliance?
b. Establishment and implementation of a framework for compliance <i>Has the FI established a framework and concrete procedures (a compliance program) to ensure consistent compliance? Are they appropriately implemented?</i>	<ul style="list-style-type: none"> • Are responsibilities with respect to compliance clarified by appointing an executive director and setting up a responsible coordination department? Are matters regarding compliance such as planning and monitoring under centralized control? • Does the FI have in place concrete procedures (i.e., planning of education and training programs, compiling codes of conduct and compliance manuals, drawing up internal rules, etc.) that effectively initiate compliance? • Do FIs with overseas branches have a compliance officer for each country who regularly monitors local legal changes? • Has the FI appropriately placed a person in charge of compliance in relevant departments and clearly stipulated their job descriptions in the allocation of duties? Have these positions been effectively put into practice (i.e., implementation of training programs and educational activities, consultation, and inspection in the event of any doubtful contradictions to rules, swift reporting to the coordinating department)? • In the development and sales of new products, does the coordinating department confirm the legal compliance of its content and policy of customer explanation in advance? • Does the FI maintain close contact with its lawyers with a view to forestalling trouble and dealing with any incident appropriately and swiftly?

Check points	Specific sample questions
<p>c. Monitoring and reporting to management</p> <p><i>In addition to monitoring, does a department independent of operations sections conduct checks on compliance? Are lawsuits and problems that could harm the FI's reputation appropriately reported to the management?</i></p>	<ul style="list-style-type: none"> • Is the compliance consistency in each type of FI business monitored by compliance officers and in-house audits on a daily basis? • Does the compliance officer promptly and appropriately report the compliance consistency and problems in each operation section to the coordinating department? • Does a department (i.e., internal audit department) independent from operation sections and a coordinating department regularly examine the compliance consistency? • Does the coordinating or internal audit department promptly and appropriately report the compliance consistency and problems to the management and auditors (or auditors committee)? • Are incidents and accidents swiftly reported to the supervisory authorities? Is the credibility of the content of reports sent to other authorities assured? • Are summaries of customer complaints or lawsuits sent to branches in order to forestall problems?

9. Disclosure and Accounting Process

Check points	Specific sample questions
<p>a. Active disclosure of financial information and restraints on management</p> <p><i>From the standpoint of fulfilling accountability to customers and shareholders, does the management actively and fairly disclose financial information? Is the management sufficiently monitored internally and externally in order to secure business operations?</i></p>	<ul style="list-style-type: none"> • Are the FI's management policy and strategies made widely known through disclosure magazines and other means? • Are major indicators of the FI's performance accurately disclosed? • Do the board of directors and auditors (or auditors committee) function appropriately to secure proper execution of business by the management? When required, does the FI appoint external board members and set up a compliance committee? • Does the management take due notice of the opinions of external auditors (letters of advice on improvement of internal control, i.e., management letters)? Does the management examine and implement appropriate improvement measures? • Does the FI actively initiate relations with investors, by for example, conducting briefings about its business performance for investors?

Check points	Specific sample questions
b. Appropriate accounting procedures <i>Is the FI's processing of daily accounts and annual financial statements sound?</i>	<ul style="list-style-type: none"> • Is the processing of daily accounts carried out properly? • Are annual financial statements produced in accordance with accounting principles? • Is there any unsound accounting manipulation of statements (i.e., figures subject to financial statements and disclosure) such as carrying over of losses that should be realized? • Are the required amounts of write-offs and provisioning determined by self-assessment appropriated in the financial statements? • Are soundness of accounting principles and reliability of financial statements secured through adequate auditing?

10. Compilation and Understanding of Contingency Plan

Check points	Specific sample questions
a. Compilation of a contingency plan <i>Has the FI drawn up a counter-measure (contingency plan) against disasters and accidents?</i>	<ul style="list-style-type: none"> • Has the FI drawn up a comprehensive plan for the head office and all branches, and is there a manual for it? • Is there a section responsible for drawing up and coordinating the plan?
b. Understanding of the plan <i>Are the management and the staff aware of the contingency plan, and do they fully understand it?</i>	<ul style="list-style-type: none"> • Is the management aware of the plan, and do they fully understand it? • Are staff aware of the plan, and do they fully understand it? • Is the plan approved by the board of directors?
c. Content of the plan <i>Does the contingency plan enable the FI to continue its operations in case of emergency?</i>	Managerial factors: <ul style="list-style-type: none"> • Does the plan give due consideration to the safety of customers and employees in case of an emergency? • Does the plan clearly designate an emergency headquarters to be in charge of dealing with a crisis? • Does the plan assess the degree of impact an emergency will have on operations? • Does the plan clearly designate the priority level of each operation, delegation of authority, and arrangements for obtaining the necessary staff in case of an emergency? • Does the plan clearly state the order and method of contacting management and staff in case of an emergency? • Does the FI have a means of communication with entities operating payment systems and supervisory authorities, etc., in case of an emergency? • Does the FI have in place a public relations network (including the use of mass communications) directed at customers in case of an emergency?

Check points	Specific sample questions
	<p>Material factors:</p> <ul style="list-style-type: none"> • Does the plan take into consideration electricity, water, and food supply? • Does the plan clearly designate the necessary action to protect assets such as securing a warehouse to store things and deciding the evaluation procedure for damaged property? • Has the FI secured backup data in a vault and/or distant location? • Does the FI have in place a backup center or a backup contract with trustworthy subcontractors or other FIs? • Has the FI secured multiple communications methods using private lines between the head office and branches, and between the computer center and branches? • Has the FI secured countermeasures (i.e., alternative office space, etc.) in the event of an emergency (in particular, for overseas branches)?
<p>d. Review and on-site drilling of the plan <i>Does the FI have a system for reviewing the contingency plan when appropriate, and are on-site drills conducted regularly?</i></p>	<ul style="list-style-type: none"> • Does the FI have a system to review the plan when necessary? • Are on-site drills conducted regularly at the head office against possible shutdown of the system? • Are on-site drills conducted regularly at both the head office and branches? • Are results of on-site drills reported to management after appropriate assessment, and utilized in reviewing the plan?

7.10.1.4.3. Determine the nature and form of the accounting standards and policies in use and their likely acceptability to ADB. In the event that they would not be acceptable, define ADB's requirements to counterparts of the FI and the borrower (where applicable).

7.10.1.4.4. Determine the nature and form of the auditing standards in use and their likely acceptability to ADB. In the event that they would not be acceptable, define ADB's requirements to counterparts of the FI, the existing auditing firm (if it is to be retained for the project) and the borrower (where applicable).

7.10.1.4.5. In the absence of any, or all, of the system elements set out in above, define new or additional system requirements necessary to support the FI and the project and advise a timetable to counterparts for their introduction and full operation, including necessary staff additions and training.

7.10.1.5. Definition of Project Cost Requirements

7.10.1.5.1. Review with counterparts and consultants responsible for project design/preparation the project description and specifications documents in order to understand the cost of proposed subprojects and similar components (new subloans) and the likely foreign and local costs for each year of new advances.

7.10.1.5.2. Review with the Project Officer the likely adequacy and suitability of the existing interest rate spread, or any new spread that needs to be instituted as part of project design, for onlending of ADB loan proceeds, etc. ensuring, where necessary, that the charges reflect any operating cost savings proposed as part of the project and take account of forecast inflationary factors.

7.10.1.5.3. Review with counterparts and consultants responsible for project design/preparation the project cost table for comprehensiveness, adequacy of structure/descriptions of base cost line items, and annual/ periodic funds flows. Ensure that any taxes and duties to be funded by subloans are clearly defined and capable of being easily defined for exclusion from ADB financing.

7.10.1.5.4. Examine any proposed physical contingencies and their legitimacy.

7.10.1.5.5. Discuss with Project Officer and, where appropriate, with counterparts, the financing plan to determine the total financing requirements, the amount and timing of receipt of each input of funds requirements, the proposed amount of ADB's proposed total loan proceeds, of receipts from cofinanciers, from internal funds, and from government's counterpart funds (where applicable).

7.10.1.6. Prepare Financial Projections for Ongoing FI Operation

7.10.1.6.1. Determine the FI's operating objectives for at least two completed fiscal years prior to the start of project implementation and the extent of their fulfillment, and reasons for any shortcomings.

7.10.1.6.2. Examine and determine the feasibility of, and acceptability to ADB of, the FI's operating objectives for the period of project implementation and its forecast for the next two following years.

7.10.1.6.3. Review the portfolio of performing and nonperforming loans, paying specific attention to adverse commentaries (if any) by the external auditors.

- 7.10.1.6.4. Review the actual ongoing performance and past statistics relating to recoveries, bad debts, and provisions, particularly the adequacy of the latter.
- 7.10.1.6.5. Review the status and performance of equity participations and the realism (realisability, earning capacity) of the related entries in the FI's financial statements.
- 7.10.1.6.6. Review the adequacy of the FI's interest rate spreads to meet all obligations.
- 7.10.1.6.7. Examine for reasonableness and profitability the FI's proposed term lending program using ADB loan proceeds and other resources.
- 7.10.1.6.8. Examine the FI's proposed equity participation program using ADB loan proceeds and other resources.
- 7.10.1.6.9. Measure the resilience, earning capacity, and security of the FI's past, ongoing and proposed short-term lending program and its actual and proposed sources of funding.
- 7.10.1.6.10. Examine the continuing feasibility/profitability of the FI's current and proposed leasing program and its actual and proposed sources of funds.
- 7.10.1.6.11. In consultation with the Project Officer and counterparts, as appropriate, determine if it will be necessary to revalue assets periodically through ADB loan period and thereafter to reflect the impact of severe inflation, prepare a forecast of the impact on lending operations.
- 7.10.1.6.12. In consultation with the Project Officer and counterparts, as appropriate, prepare the FI's operating costs with and without the project for at least two completed fiscal years prior to the start of project implementation, for the period of ADB loan disbursement, and for at least two years of operation and incorporate impacts of inflation forecasts.
- 7.10.1.6.13. Review the FI's status and performance of schedules of interest payments due to lenders.
- 7.10.1.6.14. Review the FI's status and performance of loan repayments to lenders.
- 7.10.1.6.15. Examine the reliability of the system of liquidity (cash) management and determine the number of occasions when cash reserves were depleted to dangerous levels in the most recent two years without available recourse.

7.10.1.6.16. Compile the following financial statements for at least two completed fiscal years prior to the start of loan signing, forecasts for the period of loan disbursement, and forecasts for at least three years thereafter.

- Balance Sheet
- Income Statement
- Cash Flow Statement (In cases where the FI has not prepared cash flow statements in the past, it may be difficult to prepare these retrospectively. In these cases, while the financial analyst has discretion to waive the requirement for historical cash flow statements, forecast cash flow statements are still required)
- Capital adequacy analysis
- Portfolio of Investments at year-end
- Schedule of nonperforming assets showing:
 - Nonperforming not rescheduled
 - Nonperforming rescheduled but not performing
 - Nonperforming Equity investments, and
 - Nonperforming leases
- Analysis of Income and Earnings showing percentage of average assets by categories
- Losses experience by sector/activities
- Credit risk management
- Liquidity and Interest Rate Sensitivity Management
- Provisions for Losses, Write-offs and Recoveries
- Schedule of Collateral and Securities

7.10.1.6.17. Review VaR records and prepare a chart showing significant at-risk dates and amounts at risk in the two years prior to appraisal.

7.10.1.6.18. On the basis of generated data above, compile appropriate financial performance indicators. Discuss proposed indicators with Project Officer and counterparts, explaining logic of selection and methods of calculation.

7.10.1.6.19. With Project Officer, explain in detail to counterparts the method of compilation and the forecast results of all financial statements at all appropriate levels of concerned institutions and managements with the objective of reaching agreement on the Project Cost Table, the Financing Plan, the financial projections, interest spreads, and lending conditions proposed.

7.10.1.6.20. With the Project Officer, meet with cofinanciers at mutually agreed locations (if possible in the presence of counterparts) to explain the method of compilation and the forecast results of all financial statements at all appropriate levels of concerned institutions and managements with the objective of reaching agreement on the Project Cost Table, Financing Plan, the financial projections and interest spreads, and lending conditions proposed.

7.10.1.6.21. Draft the section of the Aide Memoire relating to all financial aspects of the project and discuss with Project Officer. Make any agreed amendments for presentation of complete Aide Memoire to counterparts at appropriate levels of authority.

7.10.1.6.22. Draft paragraphs for inclusion in the financial section of the RRP, and prepare financial appendixes to attach to the RRP. Review with the Project Officer.

7.11. Undertaking Sensitivity and Risk Analyses

7.11.1. Step 1: Identify the Key Variables

7.11.1.1. The selection of variables which should be tested and the detail in which they are specified apply primarily to (i) critical cost and benefit items, (ii) critical items likely to cause nonperformance of financial covenants, (iii) the effect of delays; and (iv) aggregate costs and benefits, which are the four principal areas of a project for which sensitivity analysis normally is considered.

7.11.1.2. *Critical Cost and Benefit Items:* The most effective tests are achieved by detailed disaggregation of costs and benefits and therefore these items should be subjected to specific analysis for each project. Analysis is more beneficial if individual items that are most critical to the project are subjected to individual review. These include on the costs side, prices of major inputs, productivity coefficients, currency risks and inflation rates, and on the benefits side, output prices (with the substitution of possible tariff structure variations), rate of growth in demand for output, and unit cost savings. While “revenues” can be regarded as a critical benefit, it is likely to be more useful to identify the element or elements of revenues that are most at risk, such as “revenues from installing new sewer connections”, along with the extent/scope of their contribution to benefits and the timing thereof.

7.11.1.3. *Nonperformance of Financial Covenants:* The sensitivity of the principal elements of operations (critical operating costs e.g., wages, power and fuel, etc.), operating revenues, working capital requirements, etc., that will impact on the EAs ability to achieve (i) rate of return ratio – a rate of return on net fixed assets in operation; (ii) self-financing ratio; (iii) debt service coverage, etc., should be measured.

7.11.1.4. *Effect of Delays:* Start-up delays, implementation delays, capacity utilization and full development delays, and parallel investment delays should be subjected to analysis. Delays come in different shapes and sizes and on different occasions (at start-up; at critical commissioning stages, e.g., river crossings; weather delays, e.g., regular “wet season”; resource shortages – shipping delays, personnel strikes and slow-downs; in commissioning; in completion; and in commencement of operation. It is important

to identify the delay(s) most likely to be considered in terms of the maximum permissible delay(s) for inclusion as a Switching Value (SV). Delays may also be analyzed in terms of the periodic effects on NPV (annual, forecast percentage of completion).

7.11.1.5. *Aggregate Costs and Benefits*: Sensitivity analysis of the effects of variations in total costs and benefits of a project is useful to indicate the collective influence of underlying variables, and should be applied in all cases.

7.11.1.6. In addition to the foregoing, other critical areas which merit subsection to sensitivity analysis are potential cost overruns in project implementation and non-achievement of capacity utilization. In simple cases the variability in the project's rate of return on net fixed assets in operation will largely reflect the influence of two or three variables. In such cases probability assessments regarding those variables might provide an adequate basis for judging the risk of the project's failure, thus avoiding the need for more detailed quantitative risk analysis. Even in more complex cases sensitivity analysis may some times facilitate risk analysis by identifying the variables for which probability distributions should be specified.

7.11.2. Steps 2 and 3: Calculate Effects of Changing Variables

7.11.2.1. The values of the basic indicators of project viability (FIRR and FNPV) should be recalculated for different values of key variables. This is preferably done by calculating sensitivity indicators (SIs) and switching values (SVs).

7.11.2.2. Switching Values (SVs) are sometimes used for conducting sensitivity analysis, but their application is not mandatory. It is the financial analyst's responsibility to determine whether a demonstration of the impacts of switching values would support any decisions used in their selections. The SV of a variable is that value at which a project's FNPV becomes zero (or the FIRR equals the discount rate). The SVs are normally given in terms of the percentage change in the value of the variable needed to turn a project's FNPV equal to zero. SVs are useful to determine those variables that are most likely to affect project outcomes. SVs of the more important (or potent) variables should be presented in order of declining sensitivity.

7.11.2.3. The meaning of these concepts is presented in the following Box and a sample calculation immediately follows. Sensitivity indicators and switching values can be calculated for the FIRR and FNPV as shown below

Using Sensitivity Indicators and Switching Values

	Sensitivity Indicator	Switching Value
Definition	<p>1. Towards the Net Present Value Compares percentage change in FNPV with percentage change in a variable or combination of variables.</p> <p>2. Towards the Internal Rate of Return Compares percentage change in FIRR above the cut-off rate with percentage change in a variable or combination of variables.</p>	<p>1. Towards the Net Present Value The percentage change in a variable or combination of variables to reduce the FNPV to zero (0).</p> <p>2. Towards the Internal Rate of Return The percentage change in a variable or combination of variables to reduce the FIRR to the cut-off rate (=discount rate).</p>
Expression	<p>1. Towards the Net Present Value</p> $SI = \frac{(FNPV_b - FNPV_1) / FNPV_b}{(X_b - X_1) / X_b}$ <p>where:</p> <ul style="list-style-type: none"> X_b – value of variable in the base case X_1 – value of the variable in the sensitivity test $FNPV_b$ – value of FNPV in the base case $FNPV_1$ – value of the variable in the sensitivity test <p>2. Towards the Internal Rate of Return</p> $SI = \frac{(FIRR_b - FIRR_1) / (FIRR_b - d)}{(X_b - X_1) / X_b}$ <p>where:</p> <ul style="list-style-type: none"> X_b – value of variable in the base case X_1 – value of the variable in the sensitivity test $FIRR_b$ – value of IRR in the base case $FIRR_1$ – value of the variable in the sensitivity test d – discount rate 	<p>1. Towards the Net Present Value</p> $SV = \frac{(100 \times FNPV_b)}{(FNPV_b - NPV_1)} \times \frac{(X_b - X_1)}{X_b}$ <p>where:</p> <ul style="list-style-type: none"> X_b – value of variable in the base case X_1 – value of the variable in the sensitivity test $FNPV_b$ – value of FNPV in the base case $FNPV_1$ – value of the variable in the sensitivity test <p>2. Towards the Internal Rate of Return</p> $SV = \frac{(100 \times (FIRR_b - d))}{(FIRR_b - FIRR_1)} \times \frac{(X_b - X_1)}{X_b}$ <p>where:</p> <ul style="list-style-type: none"> X_b – value of variable in the base case X_1 – value of the variable in the sensitivity test $FIRR_b$ – value of FIRR in the base case $FIRR_1$ – value of the variable in the sensitivity test d – discount rate
Calculation example	<p>1. Towards the Net Present Value</p> <p>Base Case:</p> <ul style="list-style-type: none"> Price = $P_b = 300$ $FNPV_b = 20,912$ <p>Scenario 1:</p> <ul style="list-style-type: none"> $P_1 = 270$ (10% change) $FNPV_1 = 6,895$ $SI = \frac{(20,912 - 6,895) / 20,912}{(300 - 270) / 300} = 6.70$	<p>1. Towards the Net Present Value</p> <p>Base Case:</p> <ul style="list-style-type: none"> Price = $P_b = 300$ $FNPV_b = 20,912$ <p>Scenario 1</p> <ul style="list-style-type: none"> $P_1 = 270$ (10% change) $FNPV_1 = 6,895$ $SV = \frac{(100 \times 20,912)}{(20,912 - 6,895)} \times \frac{(300 - 270)}{300} = 14.9\%$

Sensitivity Indicator	Switching Value
2. Towards the Internal Rate of Return	2. Towards the Internal Rate of Return
Base Case: Price = $P_b = 300$ $FIRR_b = 15.87\%$ Scenario 1: $P_1 = 270$ (10% change) $FIRR_1 = 13.31\%$ $d = 12\%$	Base Case: Price = $P_b = 300$ $FIRR_b = 15.87\%$ Scenario 1: $P_1 = 270$ (10% change) $FIRR_1 = 13.31\%$ $d = 12\%$
$SI = \frac{(0.1587 - 0.1331) / (0.1587 - 0.12)}{(300 - 270) / 300}$ = 6.61	$SV = \frac{(100 \times (0.1587 - 0.12))}{(0.1587 - 0.1331)} \times \frac{(300 - 270)}{300}$ = 15.1%
Interpretation (i) percentage change in FNPV respectively (ii) percentage change in FIRR above the cut-off rate (12%) is larger than percentage change in variable: price is a key variable for the project.	A change of approximately 15 % in the price variable is necessary before the FNPV becomes zero or before the FIRR equals the cut-off rate.
Characteristic Indicates to which variables the project result is or is not sensitive. Suggests further examination of change in variable.	Measures extent of change for a variable that will leave the project decision unchanged.

7.11.2.4 The switching value is, by definition, the reciprocal of the sensitivity indicator. Sensitivity indicators and switching values calculated towards the FIRR yield slightly different results if compared to SIs and SVs calculated towards the FNPV. This is because the FIRR approach discounts all future net benefits at the FIRR value and the FNPV approach at the discount rate d .

Example of the Base Case for a Project

	PV @12%	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Benefits	2,104	0	283	339	396	453	509	566	566	566	566
Costs:											
Investment	1,687	1,889	0	0	0	0	0	0	0	0	0
Operations & maintenance	291	0	61	61	61	61	61	61	61	61	61
Total Costs	1,978	1,889	61	61	61	61	61	61	61	61	61
Net Cash Flow	126	-1,889	222	278	335	391	448	505	505	505	505

7.11.2.5. In the base case, the FNPV is 126 and the FIRR is 13.7 percent. The sensitivity of the base case FNPV has been analyzed for (adverse) changes in several key variables, as follows:

- An increase in investment cost by 10 percent
- A decrease in economic benefits by 10 percent
- An increase in costs of operation and maintenance by 10 percent;

- An adverse foreign-exchange movement of 20 percent, and
- A delay in the period of construction, causing a delay in revenue generation by one year.

7.11.2.6. Proposed changes in key variables should be well explained. The sensitivity analysis should be based on the most likely changes. The effects of the above changes are summarized in the following table.

Sensitivity Analysis: A Numerical Example

Item	Change	FNPV	FIRR %	SI (FNPV)	SV (FNPV)
Base Case		126	13.7		
Investment	+ 10%	- 211	9.6	13.3	7.5%
Benefits	- 10%	- 294	7.8	16.6	6.0%
Operating and Maintenance Costs	+ 10%	68	12.9	2.3	43.4%
Foreign Exchange Movements	- 20%	- 294	7.8	16.6	6.0%
Construction delays	One year	- 99	10.8	NPV 178% lower	

SI = Sensitivity Indicator, SV = Switching Value

7.11.2.7. Combinations of variables can also be considered. For example, the effect on the FNPV or FIRR of a simultaneous decline in economic benefits and an increase in investment cost can be computed. In specifying the combinations to be included, the project analyst should state the rationale for any particular combination to ensure it is plausible.

7.11.3. Step 4: Analyze Key Variable Changes

7.11.3.1. In the case of an increase in investment costs of 20 percent, the sensitivity indicator is 13.34. This means that the change of 20 percent in the variable (investment cost) results in a change of $(13.3 \times 20 \text{ percent}) = 266$ percent in the FNPV. It follows that the higher the SI, the more sensitive the FNPV is to the change in the concerned variable.

7.11.3.2. In the same example, the switching value is 7.5 percent, which is the reciprocal value of the $SI \times 100$. This means that a change (increase) of 7.5 percent in the key variable (investment cost) will cause the FNPV to become zero. The lower the SV, the more sensitive the NPV is to the change in the variable concerned and the higher the risk with the project.

7.11.3.3. At this point the results of the sensitivity analysis should be reviewed. It should be asked: (i) which are the variables with high sensitivity indicators; and (ii) how likely are the (adverse) changes (as indicated by the switching value) in the values of the variables that would alter the project decision?

7.11.4. Undertaking Risk Analysis

7.11.4.1. In cases where project results are expected to be particularly sensitive to certain variables, it has to be assessed how likely it is that such changes would occur. This likelihood can be assessed by studying experiences in earlier, comparable projects and by investigating the situation in the sector as a whole.

7.11.4.2. Steps should be taken to reduce the extent of uncertainty surrounding those variables where possible. The following remedial actions might be taken at the project level:

- The development of specific agreements to ensure that contractor performance and project quality during construction works reduces the likelihood of delays
- The development of agreements for long-term supply contracts at specified quality and prices to reduce the uncertainty of operating costs
- The formulation of capacity-building activities to ensure appropriate technical and financial management
- The implementation of pilot phases to test technical assumptions and to observe user's reactions, in case there is considerable uncertainty in a large project or program, and
- The setting of certain criteria that have to be met by subprojects before approval. This is especially important in sector loans where most (small) subprojects will be prepared after loan approval.

7.11.4.3. The results of the sensitivity analysis should be stated along with the associated mitigating actions being recommended, and the remaining areas of uncertainty that they do not address. Sensitivity analysis is useful at all stages of project processing: at the design stage to incorporate appropriate changes; at the appraisal stage to establish a basis for monitoring; and, during project implementation to take corrective measures. The uncertainty surrounding the results of the economic and financial analysis is expected to decrease as the project moves into the operational phase.

7.11.4.4. For the key variables and combinations of such variables, a statement can be presented including: the source of variation for the key variables; the likelihood that variation will occur; the measures that could be taken to mitigate or reduce the likelihood of an adverse change; and the switching values and/or sensitivity indicators.

7.11.4.5. The purpose of quantitative risk analysis is to estimate the probability that the project FIRR will fall below the opportunity cost of capital; or that the FNPV, using the FIRR as the discount rate, will fall below zero. A statement of such an estimate means that decisions can be based not just on the single base-case FIRR but also on the probability that the project will prove unacceptable. Projects with smaller base-case FIRRs may involve less uncertainty and have a higher probability of being acceptable in

implementation. Projects with higher base-case FIRR may be less certain and involve greater risk. Risk analysis can be applied also to projects without measurable benefits, for example to assess the probability that unit costs will be greater than a standard figure.

7.11.4.6. Undertaking a risk analysis requires more information than for sensitivity analysis. It should be applied to selected projects that are large or marginal, or where a key variable is subject to a considerable range of uncertainty. A large project is one that takes a high proportion of government or the country's investment resources, for example a project using more than 5 percent of the government's investment budget in the peak project investment years. A marginal project is one where the base-case FIRR is only marginally higher than the opportunity cost of capital. A decision should be taken at an early stage of analysis whether to include a risk analysis in the appraisal or not.

7.12. Model Operating Covenants

7.12.1. Rate of Return (see 3.6.2.2)

7.12.1.1. The following is an outline for a Rate of Return covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements. In cases of borrowers conducting multiple operations, the text of the covenant should define which operations are to be subject to performance measurement. As an example, in an electric power project to be carried out by a borrower that operated electric power, water supply and telecommunications services, the covenant normally would be drafted to apply only to the electric power operations.

Section _____.

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall earn, for each of its fiscal years after its fiscal year ending on [day/month/year], an annual return of not less than _____ percent of the average current net value of the Borrower's fixed assets in operation.
- (c) Before (date/month) in each of its fiscal years, the Borrower shall, on the basis of forecasts prepared by the Borrower and satisfactory to ADB, review whether it would meet the requirements set forth in paragraph (a) in respect of such year and the next following fiscal year and shall furnish to ADB the results of such review upon its completion.

Paragraph (d): Option 1: Where the borrower or government has discretion to adjust tariffs/rates:

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, adjustments of the structure or levels of its rates (prices)) in order to meet such requirements.

Paragraph (d): Option 2: Where there is an independent regulator in place (or where it is anticipated that an independent regulator may be established during the project implementation period):

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, filing applications with the [name of regulator] seeking a tariff/rate increase) in order to meet such requirements.
- (e) For the purposes of this Section:
 - (i) The annual return shall be calculated by dividing the Borrower's net operating income for the fiscal year in question by one half of the sum of the current net value of the Borrower's fixed assets in operation at the beginning and at the end of that fiscal year.
 - (ii) The term "net operating income" means total operating revenues less total operating expenses.
 - (iii) The term "total operating revenues" means revenues from all sources related to operations, after making adequate provisions for uncollectible debts, but excludes government grants, subsidies and transfers.
 - (iv) The term "total operating expenses" means all expenses related to operations, including administration, adequate maintenance, taxes and payments in lieu of taxes, and provision for depreciation on a straight-line basis at a rate of not less than ____ percent per annum of the average current gross value of the Borrower's fixed assets in operation, or other basis acceptable to ADB, but excluding interest and other charges on debt.

- (v) The average current gross value of the Borrower's fixed assets in operation shall be calculated as one half of the sum of the gross value of the Borrower's fixed assets in operation at the beginning and at the end of the fiscal year [Where revalued: as valued from time to time in accordance with sound and consistently maintained methods of valuation satisfactory to ADB].
- (vi) The term "current net value of the Borrower's fixed assets in operation" means the gross value of the Borrower's fixed assets in operation less the amount of accumulated depreciation [Where revalued:, as valued from time to time in accordance with sound and consistently maintained methods of valuation satisfactory to ADB].
- (vii) The terms "operations" or operating" refer to the [identify relevant part of the operations] operations of the Borrower.

7.12.2. Self-Financing Ratio (see 3.6.2.3)

7.12.2.1. The following is an outline for a Self-Financing Ratio covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements. In cases of borrowers conducting multiple operations, the text of the covenant should define which operations are to be subject to performance measurement. As an example, in an electric power project to be carried out by a borrower that operated electric power, water supply and telecommunications services, the covenant normally would be drafted to apply only to the electric power operations. Section _____

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall produce, for each of its fiscal years after its fiscal year ending on _____, cash from internal sources equivalent to not less than ___ percent of the annual average of the Borrower's capital expenditures incurred, or expected to be incurred, for
Remainder of Paragraph (b): Option 1:

that year, the previous fiscal year and the next _____ following fiscal years.

Remainder of Paragraph (b): Option 2:

that year and the next _____ following fiscal years.

- (c) Before (date/month) in each of its fiscal years, the Borrower shall, on the basis of forecasts prepared by the Borrower and satisfactory to ADB, review whether it would meet the requirements set forth in paragraph (a) in respect of such year and the next following fiscal year and shall furnish to ADB a copy of such review, upon its completion.

Paragraph (d): Option 1: Where the borrower or government has discretion to adjust tariffs/rates:

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, adjustments of the structure or levels of its rates (prices)) in order to meet such requirements.

Paragraph (d): Option 2: Where there is an independent regulator in place (or where it is anticipated that an independent regulator may be established during the project implementation period):

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, filing applications with the [name of regulator] seeking a tariff/rate increase) in order to meet such requirements.

- (e) For the purposes of this Section:

- (i) The term "cash from internal sources" means the difference between:

- (A) the sum of cash flows from all sources related to operations, plus cash generated from consumer deposits and consumer advances of any kind, sale of assets, cash yield of interest on investments, and net non-operating income.; and
- (B) the sum of all expenses related to operations, including administration, adequate maintenance and taxes and payments in lieu of taxes (excluding provision for depreciation and other non-cash operating charges), debt service requirements, all cash dividends paid and other cash distributions of surplus, increase in working capital other than cash and other cash outflows other than capital expenditures.

-
- (ii) The term “net non-operating income” means the difference between:
 - (A) revenues from all sources other than those related to operations, after making adequate provisions for uncollectible debts; and
 - (B) expenses, including taxes and payments in lieu of taxes, incurred in the generation of revenues in (a) above.
 - (iii) The term “working capital other than cash” means the difference between current assets excluding cash and current liabilities at the end of each fiscal year.
 - (iv) The term “current assets excluding cash” means all assets other than cash which could in the ordinary course of business be converted into cash within twelve months, including accounts receivable, marketable securities, inventories and prepaid expenses properly chargeable to operating expenses within the next fiscal year.
 - (v) The term “current liabilities” means all liabilities which will become due and payable or could under circumstances then existing be called for payment within twelve months, including accounts payable, customer advances, debt service requirements taxes and payments in lieu of taxes, and dividends.
 - (vi) The term “debt service requirements” means the aggregate amount of repayments (including sinking fund payments if any) of, and interest and other charges on, debt, excluding interest charged to construction and financed from loans.
 - (vii) The term “capital expenditures” means all expenditures incurred on account of fixed assets, including interest charged to construction, related to operations.
 - (viii) The terms “operations” or “operating” refer to the [identify relevant part of the operations] operations of the Borrower.
 - (ix) Whenever for the purposes of this Section it shall be necessary to value, in terms, of the currency of the (Borrower/Guarantor), debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such other currency is, at the time of such valuation, obtainable for the purposes of servicing such debt, or, in the absence of such rate, on the basis of a rate of exchange acceptable to ADB.

7.12.3. General Price Level (see 3.6.2.4)

7.12.3.1. The following is an outline for a General Price Level covenant for use in a loan or guarantee agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements.

Section _____.

- (a) The (Borrower/Guarantor) and ADB shall, from time to time, at the request of either party, exchange views with regard to the (Borrower's/Guarantor's) _____ pricing policies and its plans in respect of the overall development of the _____ sector.
- (b) The (Borrower/Guarantor) agrees, as long as it exercises control over the setting of prices of the _____ companies, to establish prices for _____ sold by such companies which would: (i) allow the _____ companies, under conditions of efficient operation at reasonable levels of capacity utilization, to cover their operating costs including taxes, earn an adequate return on funds invested in them, meet their financial obligations and make a reasonable contribution to future investment for expansion of capacity; (ii) be reasonably competitive with prices for _____ in other major producing countries; and (iii) subject to the achievement of objectives (i) and (ii) above, pass on the benefit of declines in the real cost of production to _____ through reduction in prices in real terms.

7.12.4. Operating Ratio (see 3.6.2.5)

7.12.4.1. The following is an outline for an Operating Ratio covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements. In cases of borrowers conducting multiple operations, the text of the covenant should define which operations are to be subject to performance measurement. As an example, in an electric power project to be carried out by a borrower that operated electric power, water supply and telecommunications services, the covenant normally would be drafted to apply only to the electric power operations.

7.12.4.2. This covenant may be converted to a working ratio covenant by substituting a definition of working expenses for operating expenses. This will normally require that depreciation be omitted from the definition of operating expenses recommended herein.

Section _____

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall maintain, for each of its fiscal years after its fiscal year ending on _____, a ratio of total operating expenses to total operating revenue not higher than _____ (percent).
- (c) Before (date/month) in each of its fiscal years, the Borrower shall, on the basis of forecasts prepared by the Borrower and satisfactory to ADB, review whether it would meet the requirements set forth in Paragraph (a) in respect of such year and the next following fiscal year, and shall furnish to ADB the results of such review upon its completion.

Paragraph (d): Option 1: Where the borrower or government has discretion to adjust tariffs/rates:

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, adjustments of the structure or levels of its rates (prices)) in order to meet such requirements.

Paragraph (d): Option 2: Where there is an independent regulator in place (or where it is anticipated that an independent regulator may be established during the project implementation period):

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, filing applications with the [name of regulator] seeking a tariff/rate increase) in order to meet such requirements.
- (e) For the purposes of this Section
 - (i) The term "total operating expenses" means all expenses related to operations, including administration, adequate maintenance, taxes and payments in lieu of taxes, and provision for depreciation on a straight-line basis at a rate of not less than _____ percent per annum of the average current gross value of the Borrower's fixed assets in operation, or other basis acceptable to ADB, but excluding interest and other charges on debt.

- (ii) The term “total operating revenues” means revenues from all sources related to operations, after making adequate provisions for uncollectible debts.
- (iii) The average current gross value of the Borrower’s fixed assets in operation shall be calculated as one half of the sum of the gross value of the Borrower’s fixed assets in operation at the beginning and at the end of the fiscal year, as valued from time to time in accordance with sound and consistently maintained methods of valuation satisfactory to ADB.
- (iv) The terms “operations” or operating” refer to the [identify relevant part of the operations] operations of the Borrower.

7.12.5. Breakeven Covenant (see 3.6.2.6)

7.12.5.1. The following is an outline for a Breakeven Ratio covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements. In cases of borrowers conducting multiple operations, the text of the covenant should define which operations are to be subject to performance measurement. As an example, in a sewerage project to be carried out by a borrower that also operated water supply services, the covenant normally would be drafted to apply only to the sewerage operations.

Section _____.

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower’s Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall produce for each of its fiscal years after its fiscal year ending on _____, total revenues equivalent to /or not less that the sum of (i) its total operating expenses; and (ii) the amount by which debt service requirements exceed the provision for depreciation.³⁵
- (c) Before (date/month) in each of its fiscal years, the Borrower shall, on the basis of forecast prepared by the Borrower and satisfactory to ADB, review whether it would meet the requirements set forth in paragraph (a) in respect of such year and the next following fiscal year and shall furnish to ADB the results of such review upon its completion.

³⁵ For some borrowers, which enter into this type of covenant, depreciation may not be applicable.

Paragraph (d): Option 1: Where the borrower or government has discretion to adjust tariffs/rates:

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, adjustments of the structure or levels of its rates (prices)) in order to meet such requirements.

Paragraph (d): Option 2: Where there is an independent regulator in place (or where it is anticipated that an independent regulator may be established during the project implementation period):

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, filing applications with the [name of regulator] seeking a tariff/rate increase) in order to meet such requirements.
- (e) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, filing applications with the [name of regulator] seeking a tariff/rate increase) in order to meet such requirements.
- (f) For purposes of this Section:
 - (i) The term "total revenues" means the sum of total operating revenues and net non-operating income, but excludes all government grants, subsidies and transfers income.
 - (ii) The term "total operating revenues" means revenues from all sources related to operations, after making adequate provisions for uncollectible debts.
 - (iii) The term "net non-operating income" means the difference between:
 - (A) revenues from all sources other than those related to operations; and
 - (B) expenses, including taxes and payments in lieu of taxes, incurred in the generation of revenues in (iii)(a) above.

-
- (iv) The term “total operating expenses” means all expenses related to operations, including administration, adequate maintenance, taxes and payments in lieu of taxes, and provision for depreciation on a straight-line basis at a rate of not less than _____ percent per annum of the average current gross value of the Borrower’s fixed assets in operation, or other basis acceptable to ADB, but excluding interest and other charges on debt.
 - (v) The average current gross value of the Borrower’s fixed assets in operation shall be calculated as one half of the sum of the gross value of the Borrower’s fixed assets in operation at the beginning and at the end of the fiscal year, as valued from time to time in accordance with sound and consistently maintained methods of valuation satisfactory to ADB.
 - (vi) The term “debt service requirements” means the aggregate amount of repayments (including sinking fund payments, if any) of, and interest and other charges on, debt.
 - (vii) The term “debt” means any indebtedness of the Borrower maturing by its terms more than one year after the date on which it is originally incurred.
 - (viii) Debt shall be deemed to be incurred: (a) under a loan contract or agreement or other instrument providing for such debt or for the modification of its terms of payment on the date of such contract, agreement or instrument; and (b) under a guarantee agreement, on the date the agreement providing for such guarantee has been entered into. Financial liabilities incurred by a borrower who is a lessee under finance leasing agreements may also be included as debt.
 - (ix) Whenever for the purposes of the Section it shall be necessary to value, in terms of the currency of the Guarantor, debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such other currency is, at the time of such valuation, obtainable for the purposes of servicing such debt, or, in the absence of such rate, on the basis of a rate of exchange acceptable to ADB.
 - (x) The terms “operations” or “operating” refer to the [identify relevant part of the operations] operations of the Borrower.

7.13. Model Capital Structure Covenants

7.13.1. Debt Service Coverage (Version A: Historical orientation) (see 3.6.3.3)

7.13.1.1. The following is an outline for a Debt Service Coverage covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements. In cases of borrowers conducting multiple operations, the text of the covenant should define which operations are to be subject to performance measurement. As an example, in an electric power project to be carried out by a borrower that operates electric power, water supply and telecommunications services, the covenant normally would be drafted to apply only to the electric power operations. Section _____.

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall not incur any debt, unless the net revenues of the Borrower for the twelve months prior to the date of such incurrence shall be at least ____times the estimated maximum debt service requirements of the Borrower for any succeeding fiscal year on all debt of the Borrower, including the debt to be incurred.
- (c) For the purposes of this Section:
 - (i) The term "debt" means any indebtedness of the Borrower maturing by its terms more than one year after the date on which it is originally incurred.
 - (ii) Debt shall be deemed to be incurred: (a) under a loan contract or agreement or other instrument providing for such debt or for the modification of its terms of payment on the date of such contract, agreement or instrument; and (b) under a guarantee agreement, on the date the agreement providing for such guarantee has been entered into. Financial liabilities incurred by a borrower who is a lessee under finance leasing agreements may also be included as debt. The alternative definition of incurrence of debt, as illustrated in the Debt-Equity Ratio Covenant should not be used for this form of debt limitation covenant.

- (iii) The term “net revenues” means the difference between:
- (A) the sum of revenues from all sources related to operations, after making adequate provisions for uncollectible debts, adjusted to take account of the Borrower’s (rates) (prices) in effect at the time of the incurrence of debt even though they were not in effect during the twelve-month period to which such revenues relate and net non-operating income; and
 - (B) the sum of all expenses related to operations including administration, adequate maintenance, taxes and payments in lieu of taxes, but excluding provision for depreciation, other non-cash operating charges and interest and other charges on debt.
- (iv) The term “net non-operating income” means the difference between:
- (A) revenues from all sources other than those related to operations; and
 - (B) expenses including taxes and payments in lieu of taxes, incurred in the generation of revenues in (iv)(A) above.
- (v) The term “debt service requirements” means the aggregate amount of repayments (including sinking fund payments, if any) of, and interest and other charges on debt. Interest charges which are incurred in financing capital expenditures during development should be excluded, if such charges are capitalized. However, if the borrower’s policy is to meet the cost from operating income, such interest charges should be included in “debt service requirements”. Lease payments under finance leases should also be included
- (vi) Whenever for the purposes of this Section it shall be necessary to value, in terms of the currency of the Guarantor, debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such other currency is, at the time of such valuation, obtainable for the purposes of servicing such debt, or, in the absence of such rate, on the basis of a rate of exchange acceptable to ADB.
- (vii) The terms “operations” or “operating” refer to the [identify relevant part of the operations] operations of the Borrower.

7.13.2. Debt Service Coverage (Version B: Forecast orientation) (see 3.6.3.3)

7.13.2.1. In cases of borrowers conducting multiple operations, the text of the covenant should define which operations are to be subject to performance measurement. As an example, in an electric power project to be carried out by a borrower that operated electric power, water supply and telecommunications services, the covenant normally would be drafted to apply only to the electric power operations.

Section_____.

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall not incur any debt unless a reasonable forecast of the revenues and expenditures of the Borrower shows that the estimated net revenues of the Borrower for each fiscal year during the term of the debt to be incurred shall be at least _____times the estimated debt service requirements of the Borrower in such year on all debt of the Borrower including the debt to be incurred and no event has occurred since the date of the forecast which has, or may reasonably be expected in the future to have, a material adverse effect on the financial condition of future operating results of the Borrower.
- (c) For the purposes of this Section:
 - (i) The term "debt" means any indebtedness of the Borrower maturing by its terms more than one year after the date on which it is originally incurred.
 - (ii) Debt shall be deemed to be incurred: (a) under a loan contract or agreement or other instrument providing for such debt or for the modification of its terms of payment on the date of such contract, agreement or instrument; and (b) under a guarantee agreement, on the date the agreement providing for such guarantee has been entered into.³⁶
 - (iii) The term "net revenues" means the difference between:
 - (A) the sum of revenues from all sources related to operations and net non-operating income, after making adequate provisions for uncollectible debts; and

³⁶ The alternative definition of incurrence of debt, as illustrated in the Debt-Equity Ratio Covenant should not be used for this form of debt limitation covenant.

- (B) the sum of all expenses related to operations including administration, adequate maintenance, taxes and payments in lieu of taxes, but excluding provision for depreciation, other non-cash operating charges and interest and other charges on debt. Lease payments under finance leases must also be included.³⁷
- (iv) The term “net non-operating income” means the difference between:
- (A) revenues from all sources other than those related to operations, and
 - (B) expenses, including taxes and payments in lieu of taxes, incurred in the generation of revenues in (iv)(a) above.
- (v) The term “debt service requirements” means the aggregate amount of repayments (including sinking fund payments, if any) of, and interest and other charges on debt.
- (vi) The term “reasonable forecast” means a forecast prepared by the Borrower not earlier than nine months prior to the incurrence of the debt in question, which both ADB and the Borrower accept as reasonable and as to which ADB has notified the Borrower of its acceptability.
- (vii) The terms “operations” or “operating” refer to the [identify relevant part of the operations] operations of the Borrower.
- (viii) Whenever for the purposes of this Section it shall be necessary to value, in terms of the currency of the Guarantor, debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such other currency is at the time of such valuation obtainable for the purposes of servicing such debt, or, in the absence of such rate, on the basis of a rate of exchange acceptable to ADB.

7.13.3. Debt-Equity Ratio (see 3.6.3.4)

7.13.3.1. The following is an outline for a Debt-Equity Ratio covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to

³⁷ Interest charges that are incurred in financing capital expenditures during development should be excluded, if such charges are capitalized. However, if the Borrower's policy is to meet the cost from operating income, such interest charges should be included in “debt service requirements.”

determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements.

Section _____.

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall not incur any debt, if after the incurrence of such debt the ratio of debt to equity shall be greater than _____to_____.
- (c) For purposes of this Section:
 - (i) The term "debt" means any indebtedness of the Borrower maturing by its terms more than one year after the date on which it is originally incurred.

Subparagraph (ii): Option 1: General usage:

- (ii) Debt shall be deemed to be incurred: (a) under a loan contract or agreement, or conditional sale or transfer or financing lease agreement or other instrument providing for such debt or for the modification of its terms of payment on the date of such contract, agreement or instrument; and (b) under a guarantee agreement, on the date the agreement providing for such guarantee has been entered into. Financial liabilities incurred by a borrower who is a lessee under finance leasing agreements may also be included as debt.

Subparagraph (ii): Option 2: Primarily intended for use with financial institutions:

- (ii) Debt shall be deemed to be incurred: (a) under a loan contract or agreement or other instrument providing for such debt or for the modification of its terms of payment, on the date, and to the extent, the amount of such debt has become outstanding pursuant to such contract, agreement or instrument; and (b) under a guarantee agreement, on the date the agreement providing for such guarantee has been entered into but only to the extent that the guaranteed debt is outstanding. Lease payments under finance leases should also be included.
- (iii) The term "equity" means the sum of the total unimpaired paid-up capital, retained earnings and reserves of the Borrower not allocated to cover specific liabilities.

- (iv) Whenever for purposes of this Section it shall be necessary to value, in terms of the currency of the Guarantor, debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such currency is, at the time of valuation, obtainable for the purposes of servicing such debt, or, in the absence of such rate, on the basis of a rate of exchange acceptable to ADB.

7.13.4. Capital Adequacy Ratio (see 3.6.3.6)

7.13.4.1. The following is an outline for a Capital Adequacy Ratio covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements.

Section _____

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall not make an advance to a subborrower [including leasing of an asset], if after the making of any such advance [or lease], the ratio of its equity to its assets-at-risk shall be greater than ____ to ____.
- (c) For purposes of this Section,
- (i) The term "equity" means the sum of the total of unimpaired paid-up capital, retained earnings, and reserves of the borrower available to meet any losses which may be incurred by non-recovery of assets, including provisions for bad and doubtful debts and loan [and lease] losses at the date of making such advance [lease] in (a) above;
- (ii) The term "assets-at-risk" means the sum of the total impaired value of assets at the date of making such advance [lease] in (b) above;
- (iii) The term "impaired value of assets" in (ii) above means the value of each asset of the borrower valued in accordance with sound and consistently maintained methods of valuation satisfactory to ADB.

7.14. Model Liquidity Covenants

7.14.1. Current Ratio (see 3.6.4.2)

7.14.1.1. The following is an outline for a Current Ratio covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements. In cases of borrowers conducting multiple operations, the text of the covenant should define which operations are to be subject to performance measurement. As an example, in an electric power project to be carried out by a borrower that operated electric power, water supply and telecommunications services, the covenant normally would be drafted to apply only to the electric power operations.

Section _____.

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall maintain a ratio of current assets to current liabilities of not less than_____.
- (c) Before (date/month) in each of its fiscal years, the Borrower shall, on the basis of forecasts prepared by the Borrower and satisfactory to ADB, review whether it would meet the requirements set forth in paragraph (b) in respect of such year and the next following fiscal year and shall furnish to ADB the results of such review upon its completion

Paragraph (c): Option 1: Where the borrower or government has discretion to adjust tariffs/rates:

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, adjustments of the structure or levels of its rates (prices)) in order to meet such requirements.

Paragraph (c): Option 2: Where there is an independent regulator in place (or where it is anticipated that an independent regulator may be established during the project implementation period):

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the

Borrower shall promptly take all necessary measures (including without limitation, filing applications with the [name of regulator] seeking a tariff/rate increase) in order to meet such requirements.

- (e) For the purposes of this Section:
- (i) The term “current assets” means cash, all assets, which could in the ordinary course of business be converted into cash within twelve months, including accounts receivable, marketable securities, inventories and prepaid expenses properly chargeable to operating expenses within the next fiscal year.
 - (ii) The term “current liabilities” means all liabilities, which will become due and payable or could under circumstances then existing be called for payment within twelve months, including accounts payable, customer advances, debt service requirements, taxes and payments in lieu of taxes, and dividends.
 - (iii) The term “debt service requirements” means the aggregate amount of repayments (including sinking fund payments, if any) of, and interest and other charges on, debt.
 - (iv) Whenever for the purposes of this Section it shall be necessary to value, in terms of the currency of the Guarantor, debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such other currency is, at the time of such valuation, obtainable for the purposes of servicing such debt, or, in the absence of such rate on the basis of a rate of exchange acceptable to ADB.
 - (v) The terms “operations” or “operating” refer to the [identify relevant part of the operations] operations of the Borrower.

7.14.2. Quick Ratio Covenant (see 3.6.4.3)

7.14.2.1. The following is an outline for a Quick Ratio covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements. In cases of borrowers conducting multiple operations, the text of the covenant should define which operations are to be subject to performance measurement. As an example, in an electric power project to be carried out by a borrower that operated electric power, water supply and telecommunications services, the covenant normally would be drafted to apply only to the electric power operations.

Section _____.

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower's Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall maintain a ratio of liquid current assets to current liabilities of not less than_____.
- (c) Before (date/month) in each of its fiscal years, the Borrower shall, on the basis of forecasts prepared by the Borrower and satisfactory to ADB, review whether it would meet the requirements set forth in paragraph (b) in respect of such year and the next following fiscal year and shall furnish to ADB the results of such review upon its completion.

Paragraph (d): Option 1: Where the borrower or government has discretion to adjust tariffs/rates:

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, adjustments of the structure or levels of its rates (prices)) in order to meet such requirements.

Paragraph (d): Option 2: Where there is an independent regulator in place (or where it is anticipated that an independent regulator may be established during the project implementation period):

- (d) If any such review shows that the Borrower would not meet the requirements set forth in paragraph (b) for the Borrower's fiscal years covered by such review, the Borrower shall promptly take all necessary measures (including without limitation, filing applications with the [name of regulator] seeking a tariff/rate increase) in order to meet such requirements.
- (e) For the purposes of this Section:
 - (i) The term "liquid current assets" means cash, all assets, which could in the ordinary course of business be converted into cash within twelve months, including accounts receivable, marketable securities, and prepaid expenses properly chargeable to operating expenses within the next fiscal year, but excluding inventories.
 - (ii) The term "current liabilities" means all liabilities, which will become due and payable or could under circumstances then existing be called for payment

within twelve months, including accounts payable, customer advances, debt service requirements, taxes and payments in lieu of taxes, and dividends.

- (iii) The term “debt service requirements” means the aggregate amount of repayments (including sinking fund payments, if any) of, and interest and other charges on debt.
- (iv) Whenever for the purposes of this Section it shall be necessary to value, in terms of the currency of the Guarantor, debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such other currency is, at the time of such valuation, obtainable for the purposes of servicing such debt, or, in the absence of such rate on the basis of a rate of exchange acceptable to ADB.
- (v) The terms “operations” or “operating” refer to the [identify relevant part of the operations] operations of the Borrower.

7.14.3. Dividend Limitation (see 3.6.4.4)

7.14.3.1. The following is an outline for a Dividend Limitation covenant for use in a loan agreement. It is intended as a guide only. It is the responsibility of the OGC to determine, in consultation with the mission leader and financial analyst, the precise wording for inclusion in the legal agreements.

Section_____.

- (a) For the purposes of this Loan Agreement, all financial calculations, ratios and financial covenants shall be applied in respect of the Borrower’s Operations only.
- (b) Except as ADB shall otherwise agree, the Borrower shall not declare any dividend or make any other distribution with respect to its share capital, unless after such dividend has been paid or other distribution has been made, the current assets of the Borrower would equal or exceed ___ times the current liabilities of the Borrower.
- (c) For the purposes of this Section:
 - (i) The term “current assets” means cash, all assets, which could in the ordinary course of business be converted into cash within twelve months, including accounts receivable, marketable securities, inventories and prepaid expenses properly chargeable to operating expenses within the next fiscal year.
 - (ii) The term “current liabilities” means all liabilities, which will become due and payable or could under circumstances then existing be called for payment within twelve months, including accounts payable, customer advances, debt service requirements, taxes and payments in lieu of taxes and dividends.

- (iii) The term “debt service requirements” means the aggregate amount of repayments (including sinking fund payments, if any) of, and interest and other charges on, debt.
- (iv) Whenever for the purposes of this Section it shall be necessary to value, in terms of the currency of the Guarantor, debt payable in another currency, such valuation shall be made on the basis of the prevailing lawful rate of exchange at which such other currency is, at the time of such valuation, obtainable for the purposes of servicing such debt, or, in the absence of such rate, on the basis of a rate of exchange acceptable to ADB.

7.15. Commonly Used Ratios

7.15.1. Few of these ratios are appropriate for financial institutions (FIs). Appropriate indicators for assessing FI performance are described in section 6.4.

7.15.1. Operating Indicators

Ratios or Other Measures	Computation Method	Significance and Notes
1. Rate of Return on Net Fixed Assets in Service (%)	$\frac{\text{Net Operating Income (a)} \times 100}{\text{Average of Net Fixed Assets in Service (b)}}$	Measures the productivity (yield) of Net (Depreciated) Fixed Assets in use. (a) Excluding government grants and subsidies (b) These fixed assets may, or may not, be subject to revaluations. See section 3.6.2.2 for a legal description and section 4.4.6.2 for a discussion of applicability.
2. Self-Financing Ratio (%)	$\frac{\text{Cash from internal sources}}{\text{Average Annual Capital Expenditure}^*}$	Also called Cash Generation Capability and Contribution to Expansion. Measures the percentage of annual capital investments financed from available cash resources. * Average Annual capital expenditures may be derived from an average of multiple years (e.g. one past, the present year and one future year). See section 3.6.2.3 for a legal description and section 4.4.6.3 for a discussion of applicability.
3. Operating Ratio (%)	$\frac{\text{Total Operating Expenses (including Depreciation and Taxes)} \times 100}{\text{Total Operating Revenues}}$	Measures the coverage of operating expenses by operating revenues. See section 3.6.2.5 for a legal description and section 4.4.6.4 for a discussion of applicability.

Ratios or Other Measures	Computation Method	Significance and Notes
4. Number of times interest earned (before income taxes)	$\frac{\text{Operating Income (before interest on long-term debt)}}{\text{Annual Interest Expense on Long-term Debt}}$	Measures the coverage of interest charges particularly on long-term debt before taxes.
5. Total Fixed Charge Coverage	$\frac{\text{Operating income, Interest, Lease Payments (before taxes and charges)}}{\text{Annual Interest, Lease Charges and Other Fixed Charges}}$	Similar to interest coverage ratio except that it is expanded to cover leases and other fixed charges.
6. Return on Total Assets	$\frac{\text{Net Income} + \text{Interest Expense}}{\text{Average Investment in Assets}}$	Measures the productivity of assets
7. Return on Common Stockholder Equity	$\frac{\text{Net Income} - \text{Preference Dividends}}{\text{Average Common Stockholders' Equity}}$	Indicates the earning power on common stockholders equity.
8. Return on Capital Employed	$\frac{\text{Net Income after Taxes} + \text{Tax-adjusted Interest}}{\text{Equity} + \text{Long-term Debt}}$	A measure of the efficient deployment of capital by the company.
9. Percentage Growth in Revenues	$\frac{\text{Current Period Revenues} - \text{Previous Period Revenues} \times 100}{\text{Previous Period Revenues}}$	Measures the increase in revenues between two periods.
10. Percentage of Revenues used to meet Operating (manufacturing) Expenses	$\frac{\text{Cost of Goods Sold} \times 100}{\text{Revenues}}$	Measures the gross margin for any period.
11. Gross Profit Margin	$\frac{\text{Revenues} - \text{Cost of Goods Sold}}{\text{Revenues}}$	Measures gross profit before inclusion of selling, warehousing, management and administration costs.
12. Non-operating (manufacturing) Cost compared to Sales	$\frac{\text{Selling, Warehousing, Management and Administration costs} \times 100}{\text{Revenues}}$	Overhead expense element of Revenues.
13. Profit element of Revenues	$\frac{\text{Net Profit}}{\text{Total Revenues}}$	Measures the profit element of sales.
14. Fixed Assets Turnover Ratio	$\frac{\text{Revenues}}{\text{Net Fixed Assets}}$	Measures the number of times fixed assets are turned over.

15. Inventory Turnover	$\frac{\text{Cost of Goods Sold in period}}{\text{Average Inventory for Period}}$	Measures the rate of movement in total inventory, that is, the number of times the inventory is turned over.
16. Revenues to	$\frac{\text{Revenues}}{\text{Total Assets}}$	Measures efficiency of use of assets in generating sales.
17. Return on Equity	$\frac{\text{Net Profit}}{\text{Equity}}$	Measures the rate of return on the investment in the business.

7.15.2. Capital Adequacy Indicators

7.15.2.1. The indicators in the table below are suitable for assessing capital adequacy.

Ratios or Other Measures	Computation Method	Significance and Notes
18. Debt Service Coverage Ratio (Version A)	$\frac{\text{Net Revenue [revenues – expenses (excluding non-cash and interest charges)]}}{\text{Annual Debt Service (b)}}$	Measures the number of times that debt service requirements are covered by available revenues. (a) Revenues may be adjusted to take into account any change in tariffs/charges in the year of measurement. (b) Aggregate debt repayments including principal and interest. See section 3.6.3.3 for a legal description and section 4.4.7.6 for a discussion of applicability.
19. Debt Service Coverage Ratio (Version B: Forecast Cash Flows)	$\frac{\text{Estimated Net Revenues [estimated revenues – estimated expenses (excluding non-cash and interest charges)]}}{\text{Estimated Debt Service Requirements (Principal + Interest payments)}}$	Measures the extent to which forecast cash flows are able to cover forecast debt service requirements. See section 3.6.3.3 for a legal description and section 4.4.7.6 for a discussion of applicability.
20. Debt: Equity Ratio	$\frac{\text{Total Debt}}{\text{Equity}}$	Measures the relationship between all borrowed funds and shareholders' invested capital. See section 3.6.3.4 for a legal description and section 4.4.7.7 for a discussion of applicability.
21. Long-Term Debt to Total Equity Ratio	$\frac{\text{Total Long-term Debt}}{\text{Equity}}$	A capital adequacy measure. Measures the relationship of long-term debt to equity.
22. Long-Term Debt to Total Capitalization	$\frac{\text{Long-term Debt}}{\text{Long-term Debt + Equity}}$	A capital structure measure. Measures the relationship of long-term debt to total capitalization.

23. Equity Ratio	$\frac{\text{Total Stockholders' Equity}}{\text{Total Shareholders' Equity} + \text{Total Liabilities}}$	Shows the protection to creditors and the extent of trading on the equity (leverage).
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7.15.3. Liquidity Indicators

7.15.3.1. The indicators in the table below are suitable for assessing liquidity

Ratios or Other Measures	Computation Method	Significance and Notes
24. Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	Measures the short-run debt paying ability. Is highly dependant on the quality and content of Current Assets. See section 3.6.4.2 for a legal description and section 4.4.8.2 for a discussion of applicability.
25. Quick Ratio (Acid Test)	$\frac{\text{Cash} + \text{Marketable Securities} + \text{Accounts Receivable} + \text{other Liquid Assets (excluding inventories)}}{\text{Current Liabilities}}$	Measures short-term liquidity but does not depend on the realizing of inventories. See section 3.6.4.3 for a legal description and section 4.4.8.2 for a discussion of applicability.
26. Days in Receivables	$\frac{\text{Average Accounts Receivable} \times 360 \text{ days}}{\text{Revenues}}$	Measures the average number of days required to recover accounts receivable.
27. Accounts Receivable Turnover	$\frac{\text{Net Revenues}}{\text{Average Accounts Receivable}}$	Measures the number of times that receivables turn over in a year. The higher the turnover, the shorter the time between sales and collecting cash.
28. Days in Inventory	$\frac{\text{Average Inventory}}{\text{Cost of Goods Sold} / 360}$	Measures the average number of days it will take to sell an inventory.
29. Inventory Turnover	$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$	Number of times the inventory is turned over in a period.
30. Days in Accounts Payable	$\frac{\text{Average Accounts Payable}}{\text{Cost of Goods Sold} / 360 \text{ days}}$	Measures the average time span of unpaid payables.
31. Accounts Payable Turnover	$\frac{\text{Cost of Goods Sold}}{\text{Average Accounts Payable}}$	Measures the number of times Accounts Payable turnover during a period.

7.16. Model Financial Statements: Service Organization

7.16.1. The following model set of summary financial statements is appropriate for use by a service-type organization. When using these financial statements, it is essential that:

- An appropriate *Statement of Accounting Policies* be developed and agreed between ADB and the borrower (see section 5.2).
- Appropriate *Notes to the Financial Statements* supplement the financial statements.
- Where appropriate, the Financial Statements should be tailored so that they adequately reflect the performance and position of the organization.

7.16.2. The format used for this particular model set of summary financial statements is appropriate for forecasting (projecting) financial statements (for instance, during project preparation) – the forecast period will be determined by the financial analyst (see section 3.4.1).

Example Service Organization

Forecast Income Statements

[Format for PPTA financial projections]

For the years ended 31 December

(\$'000s)	Notes	20X1 Actual	20X2 Actual	20X3 Actual	20X4 Actual	20X5 Actual	20X6 Forecast	20X7 Forecast
Operating Revenues								
Revenues from services	1	35,052	36,748	39,288	41,202	41,202	41,202	41,202
Investment income		1,157	1,073	1,126	1,243	1,243	1,243	1,243
Other operating revenue		317	332	279	269	269	269	269
		<u>36,526</u>	<u>38,153</u>	<u>40,693</u>	<u>42,714</u>	<u>42,714</u>	<u>42,714</u>	<u>42,714</u>
Operating Expenses								
Wages, salaries and employee benefits		12,960	13,363	13,975	14,504	14,504	14,504	14,504
Supplies and consumables used		4,022	4,285	4,582	4,687	4,687	4,687	4,687
Repairs and maintenance		1,000	1,000	1,000	1,000	1,000	1,000	1,000
Depreciation and amortization expenses		791	872	918	926	926	926	926
Other operating expenses		18,677	20,395	20,601	21,280	21,280	21,280	21,280
		<u>37,450</u>	<u>39,915</u>	<u>41,076</u>	<u>42,397</u>	<u>42,397</u>	<u>42,397</u>	<u>42,397</u>
Surplus/(Deficit) from Operating Activities		-924	-1,762	-383	317	317	317	317
Project-related interest income / (costs)		2,373	2,527	2,588	2,512	2,512	2,512	2,512
Other interest costs		..	..	..	..	..	..	..
Gains on sale of fixed assets		..	..	..	..	..	..	..
Total non-operating revenue / (expenses)		<u>2,373</u>	<u>2,527</u>	<u>2,588</u>	<u>2,512</u>	<u>2,512</u>	<u>2,512</u>	<u>2,512</u>
Surplus/(Deficit) from Ordinary Activities		<u>1,449</u>	<u>765</u>	<u>2,205</u>	<u>2,829</u>	<u>2,829</u>	<u>2,829</u>	<u>2,829</u>
Minority interest share of surplus/(deficit)		..	..	..	..	..	..	..
Net surplus/(deficit) before extraordinary items		<u>1,449</u>	<u>765</u>	<u>2,205</u>	<u>2,829</u>	<u>2,829</u>	<u>2,829</u>	<u>2,829</u>
Extraordinary items		..	..	..	..	..	..	..
Income tax expense		..	..	..	..	..	..	..
Net Surplus/(Deficit) for the Year after Tax		<u>1,449</u>	<u>765</u>	<u>2,205</u>	<u>2,829</u>	<u>2,829</u>	<u>2,829</u>	<u>2,829</u>

Example Service Organization**Forecast Balance Sheets****[Format for PPTA financial projections]****As at 31 December**

(\$'000s)	<i>Notes</i>	20X1	20X2	20X3	20X4	20X5	20X6	20X7
		Actual	Actual	Actual	Actual	Actual	Forecast	Forecast
Current Assets								
Cash and cash equivalents		210	93	97	100	100	100	100
Marketable securities		10,440	11,279	9,929	9,473	9,473	9,473	9,473
Receivables		5,520	5,490	5,559	5,593	5,593	5,593	5,593
Inventories		274	329	348	379	379	379	379
Work in progress		3,995	4,768	5,519	6,032	6,032	6,032	6,032
Investments		338	341	954	2,210	2,210	2,210	2,210
		<u>20,777</u>	<u>22,300</u>	<u>22,406</u>	<u>23,787</u>	<u>23,787</u>	<u>23,787</u>	<u>23,787</u>
<i>Less: Current Liabilities</i>								
Payables and provisions		4,716	4,588	4,428	4,401	4,401	4,401	4,401
Short-term borrowings		2,236	2,413	2,413	2,413	2,413	2,413	2,413
Current portion of borrowings		7,208	7,648	7,533	7,528	7,528	7,528	7,528
Employee benefits		832	857	857	856	856	856	856
		<u>14,992</u>	<u>15,506</u>	<u>15,231</u>	<u>15,198</u>	<u>15,198</u>	<u>15,198</u>	<u>15,198</u>
WORKING CAPITAL		<u>5,785</u>	<u>6,794</u>	<u>7,175</u>	<u>8,589</u>	<u>8,589</u>	<u>8,589</u>	<u>8,589</u>
<i>Plus: Non-current Assets</i>								
Investments		14,392	15,204	16,102	16,930	16,930	16,930	16,930
Property, plant and equipment		25,252	25,861	25,787	25,851	25,851	25,851	25,851
Intangible assets		2	302	830	1,322	1,322	1,322	1,322
		<u>39,646</u>	<u>41,367</u>	<u>42,719</u>	<u>44,103</u>	<u>44,103</u>	<u>44,103</u>	<u>44,103</u>
<i>Less: Non-current Liabilities</i>								
Payables		524	510	492	489	489	489	489
Borrowings		28,833	30,591	30,131	30,113	30,113	30,113	30,113
Employee benefits		7,491	7,710	7,716	7,706	7,706	7,706	7,706
		<u>36,848</u>	<u>38,811</u>	<u>38,339</u>	<u>38,308</u>	<u>38,308</u>	<u>38,308</u>	<u>38,308</u>
Net Assets		<u>8,583</u>	<u>9,350</u>	<u>11,555</u>	<u>14,384</u>	<u>14,384</u>	<u>14,384</u>	<u>14,384</u>
EQUITY								
Issued and paid-up capital		1,000	1,000	1,000	1,000	1,000	1,000	1,000
Reserves		7,201	7,190	7,190	7,190	7,190	7,190	7,190
Accumulated surpluses/(deficits)		382	1,160	3,365	6,194	6,194	6,194	6,194
Total Equity		<u>8,583</u>	<u>9,350</u>	<u>11,555</u>	<u>14,384</u>	<u>14,384</u>	<u>14,384</u>	<u>14,384</u>

Example Service Organization
Forecast Cash Flow Statements
[Format for PPTA financial projections]
For the years ended 31 December

(\$'000s)	Notes	20X1 Actual	20X2 Actual	20X3 Actual	20X4 Actual	20X5 Actual	20X6 Forecast	20X7 Forecast
OPERATING CASH FLOWS								
Receipts								
Cash receipts from customers		34,793	36,603	39,177	41,118	41,118	41,118	41,118
Other receipts		341	265	289	279	279	279	279
Payments								
Employees		-12,615	-13,043	-13,428	-13,917	-13,917	-13,917	-13,917
Suppliers		-19,750	-20,920	-20,848	-21,167	-21,167	-21,167	-21,167
Other payments		-369	-490	-1,088	-1,684	-1,684	-1,684	-1,684
Net Cash Flows from Operating Activities	2	2,400	2,415	4,102	4,629	4,629	4,629	4,629
INVESTING CASH FLOWS								
Receipts								
Interest received		1,070	835	834	901	901	901	901
Sales of fixed assets		250	125	68	59	59	59	59
Sales of investments		1,983	57	1,071	244	244	244	244
Payments								
Interest paid		-2,507	-2,516	-2,561	-2,502	-2,502	-2,502	-2,502
Purchases of fixed assets		-1,469	-2,459	-2,808	-3,181	-355	-355	-355
Purchases of investments		-130	-55	-102	-98	-98	-98	-98
Net Cash Flows from Investing Activities		-803	-4,013	-3,498	-4,577	-1,751	-1,751	-1,751
FINANCING CASH FLOWS								
Receipts								
Capital contributions from owners		..	..	..	..	..	..	..
Proceeds from new borrowings		275	1,477	353	56	56	56	56
Payments								
Capital withdrawals		..	..	..	..	..	..	..
Repayment of borrowings		-1,900	..	-953	-105	-105	-105	-105
Dividends paid		..	..	..	..	-2,829	-2,829	-2,829
Net Cash Flows from Financing Activities		-1,625	1,477	-600	-49	-2,878	-2,878	-2,878
CASH AND CASH EQUIVALENTS								
Balances as at 1 January		230	210	93	97	100	100	100
Currency changes on opening balances		8	4	..	..	..	..	..
Net increases/(decreases) for period		-28	-121	4	3	..	..	..
Balances as at 31 December		210	93	97	100	100	100	100

Example Service Organization**Notes to the Financial Statements****[Format for PPTA financial projections]****For the years ended 31 December**

(\$'000s)	Notes	20X1 Actual	20X2 Actual	20X3 Actual	20X4 Actual	20X5 Actual	20X6 Forecast	20X7 Forecast
Note 1: Revenues by Service Type								
Service Type A		376	353	379	387	387	387	387
Service Type B		34,035	35,748	38,274	40,195	40,195	40,195	40,195
Service Type C		641	647	635	620	620	620	620
		35,052	36,748	39,288	41,202	41,202	41,202	41,202

Note 2: Reconciliation of Income Statement to Operating Cash Flows

Net Surplus/(Deficit) per Income Statement	1,449	765	2,205	2,829	..	..	..
<i>Items included in net surpluses but not in net cash flows from operations:</i>							
Unrealized net foreign exchange gains	-66	-87	..	..	..	..	..
Interest received	-1,070	-835	-834	-901	..	..	..
Interest paid	2,507	2,516	2,561	2,502	..	..	..
<i>Asset movements</i>							
Depreciation	791	872	918	926	..	..	..
Gains/(losses) on sales of assets	-7	3	..	..	..	..	..
<i>Other non-cash items</i>							
Movements in employee benefit liabilities	-936	110	864	1,134	..	..	..
<i>Movements in working capital</i>	-286	-929	-1,612	-1,861			
Net Cash Flows from Operations	2,400	2,415	4,102	4,629	..	..	..

7.17. Model Financial Statements: Manufacturing Organization

7.17.1. The following model set of summary financial statements is appropriate for use by a manufacturing organization. When using these financial statements, it is essential that:

- An appropriate *Statement of Accounting Policies* be developed and agreed between ADB and the borrower (see section 5.2)
- Appropriate *Notes to the Financial Statements* supplement the financial statements.
- Where appropriate, the Financial Statements should be tailored so that they adequately reflect the performance and position of the organization.

7.17.2. The format used for this particular model set of summary financial statements is appropriate for year-end reporting.

Example Manufacturing Organization

Income Statement

[Format for year-end reporting]

For the year ended 31 December 20X2

	Notes	For the Year Ended 31 December 20X2				Cumulative Since Project Start-Date			
		Actual	Forecast	Variance		Actual	Forecast	Variance	
		\$'000s	\$'000s	\$'000s	%	\$'000s	\$'000s	\$'000s	%
SALES	1	893,121	1,431,093	-537,972	-37.6%	1,976,522	2,173,098	-196,576	-9.0%
Less Cost of Goods Sold	2	813,673	1,296,081	482,408	37.2%	1,760,823	1,932,016	171,193	8.9%
GROSS PROFIT		79,448	135,012	-55,564	-41.2%	215,699	241,082	-25,383	-10.5%
Operating Costs									
Administrative Salaries		27,326	37,742	10,416	27.6%	39,950	41,506	1,556	3.7%
Depreciation		3,917	7,335	3,418	46.6%	8,554	7,953	-601	-7.6%
Amortization		12,357	12,357	..	0.0%	12,357	12,357	..	0.0%
Administration Costs		56,037	88,259	32,222	36.5%	92,672	97,306	4,634	4.8%
Marketing Expenses		3,109	4,985	1,876	37.6%	6,904	7,596	692	9.1%
		102,746	150,678	47,932	31.8%	160,437	166,718	6,281	3.8%
OPERATING PROFIT		-23,298	-15,666	-7,632	48.7%	55,262	74,364	-19,102	-25.7%
Other income		1,000	1,080	-80	-7.4%	1,166	1,260	-94	-7.5%
Foreign exchange gains/(losses)		..	-1,570	1,570	-100.0%	-1,564	-1,845	281	-15.2%
Net Income before Interest and Taxes		-22,298	-16,156	-6,142	38.0%	54,864	73,779	-18,915	-25.6%
Project-related interest expenses		-42,672	-63,657	20,985	-33.0%	-52,343	-39,604	-12,739	32.2%
Other interest expenses		..	..	..	0.0%	..	..	..	0.0%
Income tax expense		..	..	..	0.0%	..	-8,189	8,189	-100.0%
Net Income after Interest and Taxes		-64,970	-79,813	14,843	-18.6%	2,521	25,986	-23,465	-90.3%
Gross Margin (% of Sales)		8.9%	9.4%	-0.5%	...	10.9%	11.1%	-0.2%	...
Operating Margin (% of Sales)		-2.6%	-1.1%	-1.5%	...	2.8%	3.4%	-0.6%	...

Example Manufacturing Organization**Balance Sheet****[Format for year-end reporting]****As at 31 December 20X2**

	Notes	For the Year Ended 31 December 20X2				Cumulative Since Project Start-Date			
		Actual \$'000s	Forecast \$'000s	Variance		Actual \$'000s	Forecast \$'000s	Variance	
				\$'000s	%			\$'000s	%
Current Assets									
Cash and bank		25,308	10,373			34,085	-62,165		
Bills receivable		56,114	59,943			82,791	91,025		
Accounts receivable	3	18,705	19,981			27,597	30,342		
Inventories	4	365,150	402,058			427,488	455,796		
Prepayments and other current assets		120,193	120,193			120,193	120,193		
		<u>585,470</u>	<u>612,548</u>			<u>692,154</u>	<u>635,191</u>		
Less: Current Liabilities									
Accounts payable		93,174	103,203			140,826	156,768		
Short-term debt		207,610	207,610			207,610	207,610		
Notes and bills payable		5,000	5,000			5,000	5,000		
Advances from customers		13,084	13,084			13,084	13,084		
Accrued wages and salaries		184,427	184,427			184,427	184,427		
Taxes payable		72,607	72,648			72,890	81,167		
Accruals and other current Liabilities		47,749	47,749			47,749	47,749		
Current portion of term debt		3,000	13,578			28,824	71,070		
		<u>626,651</u>	<u>647,299</u>			<u>700,410</u>	<u>766,875</u>		
WORKING CAPITAL		<u>-41,181</u>	<u>-34,751</u>			<u>-8,256</u>	<u>-131,684</u>		
Plus: Non-current Assets									
Fixed assets		800,263	1,222,024			1,136,482	1,056,928		
Capital work in progress (Assets under construction)		445,108	169,390			520,880	913,740		
Intangibles and deferrals		49,426	37,069			24,712	12,355		
Other non-current assets		30,572	15,572			..	..
		<u>1,325,369</u>	<u>1,444,055</u>			<u>1,682,074</u>	<u>1,983,023</u>		
Less: Non-current Liabilities									
Term loans		443,700	621,349			554,132	670,517		
Payables		7,646	7,646			7,646	7,646		
Other non-current liabilities		49,250	49,250			49,250	49,250		
		<u>500,596</u>	<u>678,245</u>			<u>611,028</u>	<u>727,413</u>		
NET ASSETS		<u>783,592</u>	<u>731,059</u>			<u>1,062,790</u>	<u>1,123,926</u>		
EQUITY									
Issued and paid-up capital		315,147	342,427			671,637	706,787		
Accumulated surpluses/(deficits)		468,445	388,632			391,153	417,139		
		<u>783,592</u>	<u>731,059</u>			<u>1,062,790</u>	<u>1,123,926</u>		
Current Ratio		0.93	0.95			0.99	0.83		
Quick Ratio		0.16	0.14			0.21	0.08		
Long-term Debt: Equity		0.64	0.93			0.57	0.65		

Example Manufacturing Organization**Statement of Cash Flows**

[Format for year-end reporting]

For the year ended 31 December 20X2

	For the Year Ended 31 December 20X2				Cumulative Since Project Start-Date				
	Notes	Actual	Forecast	Variance		Actual	Forecast	Variance	
		\$'000s	\$'000s	\$'000s	%	\$'000s	\$'000s	\$'000s	%
OPERATING CASH FLOWS									
Receipts									
Cash receipts from customers		915,146	1,448,537	-533,391	-36.8%	1,972,084	2,173,621	-201,537	-9.3%
Tax rebates		23,260	27,280	-4,020	-14.7%	30,990	35,150	-4,160	-11.8%
Other receipts		1,000	1,080	-80	-7.4%	1,166	1,260	-94	-7.5%
Payments									
Employees and suppliers		-896,292	-1,387,934	491,642	-35.4%	-1,811,168	-2,019,189	208,021	-10.3%
Taxes paid		-5,942	-7,508	1,566	-20.9%	-10,212	-11,414	1,202	-10.5%
Other payments				..	0.0%			..	0.0%
Net Cash Flows									
from Operations	5	37,172	81,455	-44,283	-54.4%	182,860	179,428	3,432	1.9%
INVESTING CASH FLOWS									
Receipts									
Interest received		..	..	..	0.0%	..	..	..	0.0%
Sales of fixed assets		..	..	..	0.0%	..	..	..	0.0%
Sales of investments		..	..	..	0.0%	..	..	..	0.0%
Payments									
Interest paid		-28,482	-42,370	13,888	-32.8%	-41,700	-39,604	-2,096	5.3%
Capital expenditures		..	-219,390	219,390	-100.0%	-351,490	-392,860	41,370	-10.5%
Purchases of investments				..	0.0%			..	0.0%
Net Cash Flows from									
Investing Activities		-28,482	-261,760	233,278	-89.1%	-393,190	-432,464	39,274	-9.1%
FINANCING CASH FLOWS									
Receipts									
Capital contributions									
from owners		..	..	..	0.0%	..	..	..	0.0%
Proceeds from new									
borrowings		..	168,370	-168,370	-100.0%	247,620	185,610	62,010	33.4%
Payments									
Repayment of borrowings		-3,000	-3,000	..	0.0%	-13,578	-28,824	15,246	-52.9%
Dividends paid		..	..	..	0.0%	..	..	..	0.0%
Net Cash Flows from									
Financing Activities		-3,000	165,370	-168,370	-101.8%	234,042	156,786	77,256	49.3%
CASH AND CASH EQUIVALENTS									
Balances as at 1 January		19,618	25,308			10,373	34,085		
Currency changes on opening									
balances		..	..				..	..
Net increases/(decreases)									
for period		5,690	-14,935	-20,625	-138.1%	23,712	-96,250	-119,962	-124.6%
Balances as at 31 December		25,308	10,373			34,085	-62,165		

Example Manufacturing Organization**Notes to the Financial Statements****[Format for year-end reporting]****For the year ended 31 December 20X2**

	For the Year Ended 31 December 20X2				Cumulative Since Project Start-Date			
	Actual	Forecast	Variance		Actual	Forecast	Variance	
	\$'000s	\$'000s	\$'000s	%	\$'000s	\$'000s	\$'000s	%
Note 1: Gross Margin by Product								
<i>Sales by Product:</i>								
Product A	240,318	284,659	-44,341	-15.6%	394,096	433,618	-39,522	-9.1%
Product B	230,868	258,132	-27,264	-10.6%	357,413	393,240	-35,827	-9.1%
Product C	262,416	586,880	-324,464	-55.3%	812,700	894,080	-81,380	-9.1%
Product D	149,919	287,022	-137,103	-47.8%	397,913	437,760	-39,847	-9.1%
Product E	9,600	14,400	-4,800	-33.3%	14,400	14,400	..	0.0%
Total	893,121	1,431,093	-537,972	-37.6%	1,976,522	2,173,098	-196,576	-9.0%
<i>Cost of Sales by Product:</i>								
Product A	203,418	311,059	107,641	34.6%	352,165	405,723	53,558	13.2%
Product B	203,418	336,981	133,563	39.6%	316,948	367,083	50,135	13.7%
Product C	260,375	414,746	154,371	37.2%	739,546	734,166	-5,380	-0.7%
Product D	138,324	220,334	82,010	37.2%	334,556	405,723	71,167	17.5%
Product E	8,138	12,961	4,823	37.2%	17,608	19,321	1,713	8.9%
Total	813,673	1,296,081	482,408	37.2%	1,760,823	1,932,016	171,193	8.9%
<i>Gross Profit by Product (\$'000):</i>								
Product A	36,900	-26,400	63,300	-239.8%	41,931	27,895	14,036	50.3%
Product B	27,450	-78,849	106,299	-134.8%	40,465	26,157	14,308	54.7%
Product C	2,041	172,134	-170,093	-98.8%	73,154	159,914	-86,760	-54.3%
Product D	11,595	66,688	-55,093	-82.6%	63,357	32,037	31,320	97.8%
Product E	1,462	1,439	23	1.6%	-3,208	-4,921	1,713	-34.8%
Total	79,448	135,012	-55,564	-41.2%	215,699	241,082	-25,383	-10.5%
<i>Gross Margin by Product (%):</i>								
Product A	15.4%	-9.3%	24.6%	...	10.6%	6.4%	4.2%	...
Product B	11.9%	-30.5%	42.4%	...	11.3%	6.7%	4.7%	...
Product C	0.8%	29.3%	-28.6%	...	9.0%	17.9%	-8.9%	...
Product D	7.7%	23.2%	-15.5%	...	15.9%	7.3%	8.6%	...
Product E	15.2%	10.0%	5.2%	...	-22.3%	-34.2%	11.9%	...
Total	8.9%	9.4%	28.2%	...	10.9%	11.1%	20.5%	...
Note 2: Cost of Goods Sold								
Raw Materials	424,751	690,624	265,873	38.5%	945,534	1,039,383	93,849	9.0%
Utilities	238,734	416,461	177,727	42.7%	592,612	679,561	86,949	12.8%
Direct Labor	79,639	121,775	42,136	34.6%	118,937	112,413	-6,524	-5.8%
Direct Depreciation	35,257	66,012	30,755	46.6%	76,988	71,601	-5,387	-7.5%
Other Variable Costs	22,750	38,117	15,367	40.3%	52,182	57,366	5,184	9.0%
	801,131	1,332,989	531,858	39.9%	1,786,253	1,960,324	174,071	8.9%
Plus opening finished goods	93,437	80,895	-12,542	-15.5%	117,803	143,233	25,430	17.8%
Less closing finished goods	-80,895	-117,803	-36,908	31.3%	-143,233	-171,541	-28,308	16.5%
Cost of Goods Sold	813,673	1,296,081	482,408	37.2%	1,760,823	1,932,016	171,193	8.9%

Example Manufacturing Organization**Notes to the Financial Statements****[Format for year-end reporting]****For the year ended 31 December 20X2**

	For the Year Ended 31 December 20X2				Cumulative Since Project Start-Date			
	Actual		Forecast		Actual		Forecast	
	\$'000s	\$'000s	\$'000s	%	\$'000s	\$'000s	\$'000s	%
Note 3: Receivables								
<i>By Organization Type:</i>								
Related parties	576	700			750	750		
State-owned organizations	10,256	12,500			17,200	19,000		
Other organizations	9,744	9,000			12,500	14,000		
Gross Receivables	20,576	22,200			30,450	33,750		
<i>By Age</i>								
Less than 30 days old	10,000	11,000			15,000	19,000		
30 to 60 days old	5,000	5,500			7,000	9,000		
60 to 90 days old	2,500	2,500			5,000	4,000		
90 to 180 days old	2,000	2,000			2,000	1,000		
More than 180 days old	1,076	1,200			1,450	750		
Gross Receivables	20,576	22,200			30,450	33,750		
Less: Provision for Doubtful Debts	-1,871	-2,219			-2,853	-3,408		
Net Receivables per balance	18,705	19,981			27,597	30,342		
Note 4: Inventories								
<i>By Age</i>								
Less than 2 months old	100,000	120,000			125,000	160,000		
2 to 4 months old	80,000	90,000			95,000	150,000		
4 to 6 months old	100,000	95,000			95,000	90,000		
6 to 9 months old	60,000	60,000			70,000	40,000		
9 to 12 months old	20,000	30,000			35,000	20,000		
More than 12 months old	15,150	17,058			17,488	5,796		
Gross Inventories	375,150	412,058			437,488	465,796		
Less: Provision for Obsolete Inventories	-10,000	-10,000			-10,000	-10,000		
Net Inventories per balance sheet	365,150	402,058			427,488	455,796		
Note 5: Reconciliation of Income Statement to Operating Cash Flows								
Net Surplus/(Deficit) per Income Statement	..	..			..	..
<i>Items included in net surpluses but not in net cash flows from operations:</i>								
Unrealized net foreign exchange gains	..	..			..	..
Interest revenues	..	..			..	..
Interest expenses	..	..			..	..
<i>Asset movements</i>								
Depreciation	..	..			..	..
Gains/(losses) on sales of assets	..	..			..	..
<i>Other non-cash items</i>								
Movements in employee benefit liabilities	..	..			..	..
<i>Movements in working capital</i>								
Decrease/(increase) in receivables	..	..			..	..
Decrease/(increase) in inventories	..	..			..	..
Decrease/(increase) in work in progress	..	..			..	..
Increase/(decrease) in payables	..	..			..	..
Net Cash Flows from Operations	..	..			..	..

7.18. Model Terms of Reference for an Auditor

Summary of Contents

- Name of employing authority or entity
- Delivery of opinion and report
- Clear description of the entity for which the service is to be provided
- Clear description of the material and data to be provided for the audit and timing of provision
- Scope and detail of the audit required
- Management Letter
- Statement of access available to the auditor
- Independence requirements
- Auditor and audit staff competence (Curriculum Vitae)
- Submission of Proposal and Work Plan by auditor

Detailed Contents of Terms of Reference

7.18.1. The name and address of the proposed contractors of the auditor's services, Email address, facsimile and telephone number(s) should be given. If the employer is acting on behalf of, or is a constituent part of, a larger authority or entity, this should be disclosed, to assist prospective auditors in determining their independence.

7.18.2. The auditor should be invited to submit a proposal for the delivery of an opinion and report based on the scope and detail of the audit as set out in 7.18.5. The proposal should be in respect of the annual financial statements specified in 7.18.4 of the entity described in 7.18.3. A management letter containing an opinion of the auditor on the financial management accounting and internal control systems of the entity, with recommendations for any changes needed to improve performance within (specify) ___ (days) (weeks) (months) after the provision of the annual financial statements to the auditor will also be provided. This section should specify whether the engagement is for one or more fiscal years (or for a specific period). It is preferable that the period be fixed to give the auditor an opportunity for a medium-term contract. This will enable them to become familiar with the entity (e.g., three to four years), while the contract can still be terminated at a fixed date to enable the employer to consider alternative auditors. Also, the contract should allow for termination on grounds of inadequate performance, but not on grounds of a qualified report or disclaimer.

7.18.3. A detailed description – both legal and generally informative – should be provided to enable the auditor to understand fully the nature, location and objective of the entity under audit. Any widespread geographic characteristics should be revealed, together with: (i) Organization charts; (ii) Names of senior managers; (iii) Name and

qualification of the person(s) responsible for financial management, accounting and internal audit; (iv) Name and address of any existing external auditor; (v) Computing or other data processing facilities in use; (vi) A copy of the latest published financial statements; and (vii) Internal facilities (if any) available to an external auditor (e.g., office accommodation, calculators, computing).

7.18.4. The exact form of the annual financial statements and supporting documentation that will be supplied to the auditor on which they are to give an opinion and a report will be specified. The estimated time of the provision of these documents to the auditor should be given (e.g., three months after the close of the fiscal year). The annual financial statements must consist of a balance sheet, income statement and cash flow statement for a revenue-earning entity accompanied by supplementary statements or schedules supporting the basic statement (e.g., inventories, schedule of assets, outstanding loans, aging of receivables, etc.). In a non-revenue earning entity, or for the audit of project accounts, the annual financial statement may consist of the Statement of Receipts and Payments only on project transactions. Other schedules of value or cumulative work-in-progress, assets and inventories and a summarized reconciled bank statement are to be attached.

7.18.5. The scope and detail of the audit should be given in sufficient detail to enable an auditor to understand particularly if there are any requirements beyond those of a “normal” or routine audit. Typical requirements could be:³⁸

- The audit should be carried out in accordance with generally accepted auditing standards, which include professional or general standards, standards of fieldwork and reporting. The auditor should indicate the extent (if any) that an auditor would not conform to those standards and indicate any alternative standards to which they may (be required to) conform.
- The auditor should comment on the accounting principles adopted by the entity under audit, particularly to confirm the extent that generally accepted accounting principles have been and are being consistently applied. The adoption of other principles and their effect on the annual financial statements should be indicated. In particular, the auditor should show the impact on the financial statements arising from deviations from international accounting standards issued by the International Accounting Standards Committee. They should be required to comment on the basis of accounting changes, either during a fiscal year, or from one year to another.
- The auditor should provide a confirmation, or otherwise, of the borrower’s compliance with covenants in the loan agreement and with ADB’s specific requirements with respect to the financial management of the EA.

³⁸ Financial Analysts have discretion to agree alternative arrangements (see paragraph 2.4.3)

- The auditors should be required to plan and conduct their work on the basis of a sufficient audit program that will cover the entity's activities and enable them to express an opinion and furnish the reports they are tasked to provide.
- In devising the audit program, the auditor should be required to take into consideration not only the nature and scale of the expenditure and income operations, but also the scale, effectiveness and reliability of the accounting and administrative procedures. Also, the financial and administrative internal controls and checks should be considered. Systems of internal controls and checks, including internal audit, should be reviewed and evaluated. This process will determine the degree of reliance that can be placed upon the existing arrangements, and the extent of testing that needs to be performed by the auditor.
- The auditor's activities should include dialogue with independent board members. Among other things, the dialogue should cover the adequacy of bad-debt provisions, contingent liabilities, related-party transactions, internal control systems, management and board reporting, and management systems, integrity and capability.
- The auditor should be required to appraise the procedures for:
 - o Safeguarding assets between operating, custodial, accounting and internal audit duties, and assurance that such duties and responsibilities are clearly defined and that sufficient staff are available to perform the function accurately and efficiently.
 - o Ensuring that assets and resources are used in accordance with instructions or regulations in the most effective and economical manner.
 - o Ensuring that all transactions are accounted for accurately and properly.
 - o Compilation and certification of Statements of Expenditures (where used for loan disbursements).
 - o Any other matter required by ADB to assure satisfactory financial management of the project (and EA).
- The auditors should satisfy themselves as to the fairness and accuracy of the financial statements and the supplementary statements provided by obtaining sufficient supporting evidence through the examination of accounting records and supporting corroborative material, direct physical inspection, general observation, inquiry and confirmations, including:
 - o A verification to ascertain that all assets and liabilities are properly recorded, and that holdings, in particular, inventory and stock accounts, have been verified by physical inspections and counts, when feasible.
 - o Ensuring that expenditures are in accord with budgetary provision, and that the appropriate regulations and directives have been observed.
 - o Tests of calculations, e.g. payrolls; check of disbursement percentages in claims for withdrawals of ADB loans.
 - o Verification of systems of commitments and payments to confirm entitlements and actual discharges by creditors, and/or receipts to ascertain that all dues

- have been received, or amounts receivable properly brought to account; these verifications should include obtaining certificates or other forms of confirmation from debtors and creditors.
- o A verification of securities and moneys recorded in the books as being on deposit through certificates issued by the depositories, including appropriate reconciliations.
 - o Verification of efficacy of data processing.
 - o The verification of the financial statements against the entries in the main books of account, supplemented by tests of the latter with subsidiary books, records and vouchers, contracts, purchase orders and other original documents.
 - o The auditor should be required to verify Statements of Expenditure (SOE) or copies thereof, where these are used, against the records of prime entry (e.g., operating expenses accounts, inventories records and job cards), supplemented by tests against both initial documentation (e.g., invoices, salary sheets with receipts) and physical inspection of work done, or goods and services acquired;
 - To the extent not addressed in a Management Letter, the auditor should be required to conduct a review and provide a report on the following:
 - o Efficiency and economy in the use of resources.
 - o Determination of whether planned results of a project are being achieved.
 - o Compliance, or otherwise, with financial and other performance covenants and other obligations of the borrower and the EA as specified by ADB and the extent of actual compliance or noncompliance of each covenant and obligation by reference to performance criteria agreed with ADB.
 - o Defined areas of systems (e.g., improvements in accounting and data processing operations which may be under development) on which the auditor's comments are necessary to ensure accuracy, efficiency and provision of adequate audit trails.
 - o Any other activities on which an auditor may usefully report.
 - The foregoing list is not exhaustive, nor should all matters be addressed in every project. The scope and detail of an audit are likely to be unique for each project or project entity.

7.18.6. A Management Letter.

7.18.7. The auditor should be informed in a clearly worded statement that they have full and complete access at any time to all records and documents, including books of account, legal agreements, bank records and invoices. Also the auditor will be provided with full cooperation by all employees of the entity whose activities involve, or may be reflected in, the annual financial statements. The auditor should be advised on their rights of access to banks and depositories, consultants, contractors and other persons or firms hired by the employer. In the event that an auditor may not have unrestricted

access to any person or location during the course of an audit, this restriction should be defined in the terms of reference.

7.18.8. The auditors should be informed of the need for their impartiality and independence from any aspects of management or financial interest in the entity under audit. In particular, the auditor should be independent of the control of entity. The auditor should not, during the period covered by the audit, be employed by, or serve as director for, or have any financial or close business relationship with the entity, except as an independent professional adviser. The auditor should not have any close personal relationship with any senior participant in the management of the entity. It may be appropriate to remind an auditor of any existing statutory requirements relating to independence and to require auditors to disclose any relationship likely to compromise their independence.

7.18.9. The auditor should be authorized to practice in the country and be capable of using procedures and methods that conform to generally accepted auditing practices of the country. The auditor should have adequate staff, with appropriate professional qualifications and suitable experience, including experience in auditing the accounts of entities comparable in nature, size and complexity to the entity whose audit they are to undertake.

- Curriculum vitae (CVs) should be provided to the client by the principals of the firm of auditors who would be responsible for providing the opinions and reports, together with the CVs of managers, supervisors and key personnel likely to be involved in the audit work.
- It may be appropriate to indicate desirable minimum professional qualifications considered necessary for the higher levels of auditors to be responsible for the work (e.g. certified public accountant).
- CVs should include details on audits carried out by these staff, including ongoing assignments. The principal objective of the foregoing is to satisfy the employer that an auditor has the capability and capacity to execute the audit.
- The auditor may have not only a contractual obligation but also a statutory obligation to conduct a satisfactory audit, and it may not be necessary to insist on the employer being notified every time the auditor substitutes a staff member. Nevertheless, this precaution may be invoked.

7.18.10. The auditor should be asked to provide a proposal and a work plan that among other things, should address:

- Whether the audit would be conducted as a completed audit (i.e., will the auditors carry out their audit after the close of the fiscal year, when the books of account are, or are being, closed).

- Whether an audit carried out after the close of a fiscal year would be supplemented by one or more interim audits during a fiscal year. The principal purpose is to test ongoing systems and internal controls, and to relieve pressure on the staff of the entity and on the auditor at year-end.
- The manner in which the auditor proposes to address any statutory requirements relating to audit (e.g., certifications relating to shareholders' equity required under the companies' act) or to which they may be implicitly bound by contractual obligations of the employer (e.g., ADB auditing requirements, Statements of Expenditure, Imprest Accounts).
- Procedural requirements for certain verification procedures (e.g., checking of stocks, inventories, assets, etc.).
- Specific actions required on the part of the employer (e.g., access to EDP, disclosures).
- Discussions before signing the opinion and report on any matters arising from the audit, and with whom these discussions would be held.
- Special audits (e.g., review of portfolio and securities).
- Timetable for provision of opinions and reports.

7.19. Audit Report Questionnaire

7.19.1. Using the Audit Report Questionnaire

7.19.1.1. This questionnaire is provided only as an example of the nature and type of questions that should be considered when reviewing the report of an auditor. Financial analysts should have regard to the nature of the organization under audit and frame their questions accordingly.

7.19.1.2. Agencies operate in a wide range of sectors and activities, and therefore the form and nature of their financial statements will vary equally widely.

7.19.1.3. Further, approaches to, and the quality of auditing is variable. Therefore, the questions set out below should be regarded with some caution, because these may not have sufficient breadth or depth for some institutional statements and audits. Conversely, these may also be considered too extensive for some EAs, their activities and the audit services available.

7.19.1.4. Nevertheless, by using this checklist, or a suitably modified version thereof to reflect the nature and form of the EA concerned, a financial analyst should be able to obtain a reasonable view of the acceptability of the financial statements concerned and the audit thereof. To the extent possible each question should be answered by either "YES", or "NO", or N/A (Not applicable).

7.19.2 Authenticity, Form, and Timeliness

	Yes	No	N/A	Ref	Remarks
(1) Are the audited annual project financial statements and, where applicable, the EA's audited annual financial statements signed by the entity's management?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(2) Is the audit report signed by the auditor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(3) Is the opinion on the auditor's letterhead?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(4) Is the report bound and pages consecutively numbered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(5) Was the report received within a reasonable time after signing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(6) Was the report received within period covenanted (refer to the loan agreement)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(7) Is there a copy of a Management Letter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(8) Where appropriate, do the annual financial statements include reported data for the previous accounting period to enable comparisons to be made, particularly closing balances which should represent opening balances for the fiscal year under audit, and illustrate increases and decreases, where applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

7.19.3. Audit Opinion

	Yes	No	N/A	Ref	Remarks
(1) Was the examination asserted to be made in accordance with generally accepted auditing standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(2) Were generally accepted accounting principles applied on a basis consistent with that of the preceding year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(3) Is a precise and "clear" opinion provided on: (i) Financial position, (ii) Results of operation, and (iii) Cash flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(4) Does the paragraph on the scope of the audit cover examination of the: (i) Balance Sheet (ii) Income Statement, and (iii) Cash Flow Statement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(5) Are supplementary data stated fairly in all material respects, when considered in conjunction with the financial statements taken as a whole?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(6) Does the report address the auditor's objectives under the loan agreement (i.e., utilization of loan funds, compliance with specific covenants, use of imprest funds, statement of expenditure procedures, conformity with ADB's Procurement Guidelines)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(7) Does it appear that the supplementary statements form part of the accounts? Are they covered by the auditor's certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(8) Is the auditor's opinion unqualified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

7.19.4. Matters Addressed

	Yes	No	N/A	Ref	Remarks
(1) Balance Sheet – Fixed Assets					
(a) Is the categorization and analysis of assets representative of the entity's interests and activities (e.g., land, buildings, equipment, machinery, vehicles)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(b) Are fixed assets under construction shown separately (Does the line item include the project)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(c) Is there a schedule attached of gross fixed assets, accumulated depreciation provision and net fixed assets: (i) in operation; (ii) not in operation; (iii) with data on changes in asset holdings in year, including (a) sales, (b) revaluations, and basis for it, and (c) changes in depreciation provision?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(d) Is accumulated depreciation shown with depreciation rates and bases of calculation in supporting schedules?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(e) Are disclosures made of assets: (i) leased out, and (ii) pledged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(f) In cases of revaluation of fixed assets and/or restatements of foreign long-term debt, is sufficient information provided to reconstruct both sides of the revaluation entries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(2) Balance Sheet – Current Assets					
(a) Is the total of current assets revealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(b) Is there an adequate analysis of current assets (e.g., prepaid expenses, deposits on contracts, receivables, inventories, marketable securities, short-term bank deposits, cash at bank, and cash on hand)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(c) Are receivables adequately analyzed, aged and classified between key classes of debtors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(d) Do marketable securities exclude medium-/long-term investments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(e) Is a bad and doubtful debt allowance indicated (Have actual bad debts been written off)? For financial institutions, is the provisioning policy in compliance with prudential guidelines)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(f) Is there a suitable inventory analysis including: (i) manufacturers' products for sale, (ii) materials and goods for incorporation, (iii) materials in manufacturing progress, (iii) materials and goods for maintenance, and (iv) work-in-process? Are the valuation bases described for each? Are the inventory policies and practices consistent from year to year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(3) Balance Sheet – Investments and other Assets					
(a) Are investments detailed in supporting schedules, with bases of valuation, revaluation, losses and yields?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(b) Are deferred charges and pre-operating expenses shown with amortization rates and accumulated amortization, where appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(c) For Other Assets, are goodwill or intangibles shown, with valuation bases? (Are "Other assets" substantial, and if so, is there an analysis in the Notes to the Financial Statements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

- (4) Balance Sheet – Investments and other Assets
- (a) Is there an adequate analysis of equity (e.g., authorized capital; paid-in capital; share premiums; shares outstanding; government or other public authority contributions; surpluses from appropriated earnings, unappropriated earnings, and revaluations)?
- (b) Is there a statement of shareholders equity?
- (5) Balance Sheet – Long-term Debt
- (a) Are current maturities excluded and shown under current liabilities?
- (b) Are all amounts due and payable but not repaid to lenders disclosed?
- (c) Is there a comprehensive schedule of long-term debt, showing, among other things, for each outstanding loan: (i) original amount borrowed; (ii) interest rate, grace and repayment period and other relevant terms, (e.g., secured debt); (iii) currency in which debt is repayable and conversion rates, if applicable, at date of borrowing and current; (iv) gross amount outstanding and effective currency conversion, if applicable; (v) long-term debt transactions during year; (vi) current maturities; and (vii) maturities due and payable, but not paid?
- (6) Balance Sheet – Current Liabilities
- (a) Is total of current liabilities shown and suitably analyzed (e.g., current maturities of long-term debt, short-term borrowings, consumer deposits, taxes due, dividends due, accounts payable, accrued and other liabilities)?
- (7) Balance Sheet – Other Liabilities
- (a) Are relevant other liabilities adequately described and analyzed, including such matters as: pensions and other employee benefits, and deferred Taxation?
- (b) Are the analysis of the foregoing and the format of the balance sheet items in accordance with sound accounting practices?
- (c) Are contingent liabilities and pledges disclosed?
- (d) Are reserve funds (e.g., pension funds) adequately classified, explained and legally utilized and provided for?
- (e) Are suspense accounts fully explained?
- (f) Is there an adequate description of verification procedures for fixed and movable assets and inventories?
- (g) Is a statement of adequacy of insurance required?
- (h) Is there an analysis in Notes to the Financial Statements of "Other Liabilities" where the amount is substantial?
- (8) Income Statement
- (a) Does the construction of the revenue, expenditure and other key items of this statement and supporting data provide satisfactory financial evidence of the results of activities conducted by the entity?

- (b) Does the statement provide statistical data on (i) sales or other performance; (ii) manufacturing costs; (iii) sales costs; (iv) operating costs; (v) maintenance costs; (vi) administration costs; (vii) depreciation; (viii) non-operating income (analyzed); (ix) amortization of deferred charges?
- (c) Are unusual items clearly shown (e.g., exchange gains or losses; profit or losses on sale of assets; and profits or losses from adjustments made to reflect changing prices and/or inflation)?
- (d) Does the statement include any items relating to other fiscal years (e.g., prior-year adjustments), and are these separated from the current year?
- (e) Is the net income relating to the fiscal year's operations clearly demonstrated before inclusion of other items, as in (c) and (d) above?
- (f) Is the allocation of Net Income clearly demonstrated?
- (g) Does the opinion cover this statement?
- (9) Cash Flow Statement
- (a) Does the statement provide a clear description of operating, investing and financing cash flows?
- (b) Do the transactions shown tie back to the Balance Sheet and Income Statement with the appropriate reconciliations?
- (c) Does the opinion cover this statement?

7.19.5. Auditor's Opinion and Report

	Yes	No	N/A	Ref	Remarks
(1) Where the audit opinion is qualified, is there sufficient information to quantify the effects of qualification on the: Balance Sheet Income Statement and Cash Flow Statement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
(2) Does the audit report contain an opinion on whether the entity/ borrower is complying with/ breaching any ADB covenants or other legal agreements? For instance: <ul style="list-style-type: none"> • Utilization of loan proceeds (e.g., diversion of ADB funds, utilization for aspects where counterpart funds should have been used, etc). • Project implementation (delays, bottlenecks, procedural procurement lapses). • Statement of Expenditures (splitting of payments to avoid SOE ceiling, amount inadmissible). • Imprest Fund (used for aspects meant for counterpart funds). • Agreed upon matters between ADB and Borrower that require special attention. • For revenue-earning EAs/Borrower (significant changes in financial statement balances between financial years, significant bad debts, unrecorded liabilities, etc). 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

- | | |
|--|--|
| (3) Did the audit examine the efficiency of systems of internal control? If so, does the audit report disclose any material deficiencies or weaknesses in the accounting system or overall system of internal control? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| (4) Does the audit report confirm, or otherwise, that financial management systems employed by the EA conformity with ADB requirements in the loan agreement? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

7.19.6. Conclusion and Further Action (if any)

Remarks

- (1) Have the audit findings/recommendations of previous years been resolved satisfactorily by the EA (Please list separately all outstanding audit findings and recommendations as of the end of the previous year, and indicate on each finding whether or not it has been resolved by the EA during the current review period).
- (2) Have you reviewed the questions marked as "No" in the checklist filled out by the external auditors? If so, are there any material aspects that need to be pursued further?
- (3) Indicate conclusion reached by reviewer
- (4) Indicate any follow-up action needed immediately or during the next mission.

Prepared by:

Endorsed by:

Approved by:

Notes: In the case of revenue-earning EAs, the Project Officer will continue to make use of the financial statement in the manner currently used, which may include computations of ratios.
The above questionnaire is meant to serve as a guide for regional divisions. It may be modified to suit specific needs.

A

Accounting Basis

- Accrual 5.2.3.5.2, 5.3.3.2, 5.3.3.4
- Cash 5.3.3.2, 5.3.3.5, 5.3.3.11, 5.4.3.7, 5.6.2.8

Accounting Policies 2.4.3, 2.7.1, 4.2.8.4, 5.2.1.3, 5.2.3.2, 5.2.3.5, 5.3.2.3, 5.6.1.4, 7.4.1

Accounting Systems 3.7.3.5.1, 4.2.6.1.8, 4.2.6.2.4, 4.2.8.1.7, 4.2.8.6, 4.2.9.2, 4.2.9.3, 4.2.9.6.6, 5.3.1.2

Action Plans 3.7.3.6.5, 5.2.3.2.6

ADB

- Asian Development Fund (ADF) 2.2, 3.4.3.1.1, 4.2.4.4.4, 4.3.4.10.4
- Disbursement Handbook 4.2.9.8.4, 5.4.3.2
- Guidelines on Operational Procedures GP 43 2.7.1, 2.8.1, 5.3.1.1
- Japan Special Fund (JSF) 2.2.1
- Operations Manual
- Ordinary Capital Resources (OCR) 2.2.1
- Procurement Handbook 5.4.3.2, 7.7.1.2.2, 7.8.1.2.3, 7.9.1.2.2, 7.10.1.2.3

ADB Reports

- Back to Office Report (BTOR) 3.4.4.2.6, 3.4.4.3.4, 4.4.5.3.3, 5.4.9.7
- Project Completion Report (PCR) 2.11.1, 3.7.4.2
- Project Preparation 2.6.3, 3.7.2
- RRP 2.7.1, 3.4.3.3.1, 3.4.4.1.3, 3.4.4.3.4, 3.5.2.2.2, 3.7.2.4, 3.7.3, 4.2.9.5.4, 4.3.4.10.3, 5.3.1.4, 7.9.1.9.5
- Supervision 2.10.1, 4.3.3.5.1, 6.3.4.5.3

Annual Net Cash Flows 2.7.1, 3.4.7

Anti-corruption 4.2.3.6

Appraisal Checklist 1.4.3, 3.1.2, 3.3, 6.5.1, 7.10

Asset Revaluation 4.4.5.8, 7.9.1.7.3

Assumptions 1.5.2, 3.4.3.6, 3.4.4.3.4, 4.3.4.7.2, 4.3.7

Auditing Standards 5.4

Auditors

- Auditing Procedures 5.4.3,
- Government Auditors 4.2.9.7.2, 5.4.10, 5.5.4
- Management Letters 5.4.5.2, 5.4.6.3 , 5.4.7.3, 5.6.10
- Opinion on Compliance with ADB Requirements 5.6.5
- Opinions 5.6.2
 - Model Opinions 5.6.3
- Selection and Appointment 5.4.4, 5.4.5, 5.4.6, 5.4.8
- Terms of Reference 5.4.7, 7.18
- Using Technical Experts 5.6.8

C

- Capital Adequacy 3.6.3.6, 4.4.5.1.6, 4.4.5.5.1, 4.4.5.10, 4.4.7.9, 6.4.3.1, 6.6.2.2, 7.13.4, 7.15.2
- Cofinancing 2.2.5, 3.4.6.3, 4.2.6.3.12
- Contingencies 3.4.4, 6.6.2.2
- Physical Contingencies 3.4.4.2
 - Price Contingencies 3.4.4.3
 - Risk Contingencies 3.4.4.4
- Cost Estimates 3.4.3, 3.4.6.3, 3.4.7.3, 4.3.4.10.1, 4.3.6.1.6, 7.6.2
- Base Cost Estimate 3.4.3.8, 3.4.3.3, 3.4.4.1.2, 3.4.4.3.8, 3.4.5.5
 - Foreign Costs 3.4.3.2, 7.7.1.5.6, 7.8.1.5.7, 7.9.1.5.7
 - Local Costs 3.4.3.1, 3.4.3.3, 7.7.1.5.4, 7.8.1.5.1, 7.9.1.5.1, 7.10.1.5.1
- Cost Recovery Systems 3.7.3.4, 3.7.3.6.7, 4.3.3.1, 4.3.3.2, 4.3.3.3, 4.3.3.4
- COSTAB Model 3.4.2, 7.7.1.5.3
- Country Diagnostic Study of Accounting and Auditing (DSAA) 2.6.3, 4.2.5, 5.2.3.1.1, 7.8.1.1.2

D

- Disbursement Profiles 3.4.5, 7.8.1.5.8, 7.9.1.5.8
- Discount Rate 3.5.2, 7.11.2.2, 7.11.4.5

E

- Executing Agency (EA) 3.7.3.1.1, 4.2.6.3, 4.2.9.1.1, 4.2.9.4
- Appraising an Executing Agency 4.2.6.3
 - Determining the Status and Roles of EAs 4.2.6.2

F

- Financial Analysis 1.3.1, 3.4.7.3, 3.5.4.7, 3.7.3.4.2, 3.7.3.6.2, 3.7.4.1.4, 4.3, 4.4.5.2.1, 7.6.6, 7.7.1.2.2
- Financial Analyst 1.3.4, 2.4.3, 2.6.3, 3.1.2, 3.4.1.3, 3.4.3.6, 3.4.4.3.5, 3.6.1.7, 3.7.1.1, 3.7.2.2, 4.1.2, 4.1.4, 4.2.1.4, 4.2.4.2, 4.2.7.6, 4.4.5.1.4, 4.4.5.11.1, 5.2.3.1.1, 5.2.3.3.1, 6.4.4.6.1, 7.6.1, 7.11.2.2, 7.19.1.1
- Financial Charges During Development (FCDD) 3.4.2.1, 3.4.3.4, 3.4.7.3
- Financial Institutions (FIs) 1.3.3, 1.4.6, 2.4.1, 2.4.4, 2.6, 3.3.4, 3.6.3.1.2, 3.6.3.6, 4.1.4, 4.4.7.6.2, 4.4.7.9.1, 6.1, 6.2, 6.3, 6.6.2.1, 7.10
- ADB Policy
 - Directed-Credit Programs 6.2.4
 - Interest Rate Distortions 6.2.3
 - Subsidies 6.2.5
 - Appraisal 6.3.4
 - Appraisal Checklist 6.5, 7.10
 - Assessing FI Performance 6.4
 - CAMEL Framework 6.4.3, 6.4.5
 - Capital Adequacy Ratio (CAR) 3.6.3.6, 4.4.5.10, 4.4.7.9, 6.4.3.1, 6.6.2.2, 7.13.4, 7.15.2
 - Credit Ratings 6.4.5
 - Financial Reporting Issues 6.6.2
 - General Operational Issues 6.2.1
 - Internal Controls 6.4.6
 - Policy Framework for FIs and FI Loans 6.2.2
 - Reviewing Financial Management 6.2
 - Role of Regulators 6.4.4.6
 - Value at Risk (VaR) 6.4.4.2, 6.6.3.3, 7.10.1.6.17

Financial Internal Rate of Return (FIRR)	3.5.2.1.1, 3.5.3, 4.3.5.2.6, 7.8.1.8.1, 7.9.1.9.1, 7.11.2, 7.11.2.3, 7.11.4.5
Financial Management	1.3.6, 4.1, 4.2.8.7, 4.2.9.2, 5.3.4.1, 5.4.6.6, 5.6.10.3, 7.7.1.4, 7.8.1.4, 7.9.1.4,
Financial Management Guidelines	
• Handbook for Borrowers	1.1.3, 5.4.6.6, 7.7.1.2.2, 7.8.1.2.3, 7.9.1.2.2, 7.10.1.2.3
• Objectives	1.3
• Rationale	1.2
• Updating Process	1.6
Financial Net Present Value (FNPV)	3.5.3, 3.5.4, 7.11
Financial Opportunity Cost of Capital (FOCC)	3.5.2.1, 3.5.4.2
Financial Policies	1.2.1, 2.4.2, 2.6.3, 4.2.1.1, 4.2.4, 4.2.7.4, 4.2.8.1.7, 4.4.5.10.6, 5.2.1.3, 5.2.3.1.2, 5.3.3.3
Financial Regulations	4.2.8.5, 4.2.8.9, 4.2.9.3.1
Financial Reports	
• Balance Sheets	3.6.3.2.1, 3.7.3.2.1, 3.7.3.6.3, 4.3.4.1.2, 4.3.4.7, 4.3.6.5.1, 5.3.3, 5.3.7.1, 5.3.7.7, 7.17.2, 7.19
• Cash Flow Statements	3.4.3.4.2, 3.4.6.3, 3.7.3.6.2, 4.3.4.6, 4.3.4.9.1, 4.3.4.10.1, 6.6.2.2, 7.8.1.6.9, 7.10.1.6.16, 7.16.2, 7.18.4, 7.19
• Designing Financial Reports	5.3.9, 5.3.10
• Fiscal Period Coverage	4.3.5.2, 4.3.5.3
• Imprest Account Statements	4.2.9.8.4, 5.3.2.5, 5.3.3, 5.4.3.10, 5.6.9
• Income Statements	4.3.4.5, 4.3.6.5.1, 5.3.3.3, 5.3.3.11, 5.3.7.5, 5.3.8, 7.16.2, 7.17.2, 7.19.4
• Notes to the Financial Statements	5.2.3.1.2, 5.2.3.5.2, 5.3.2.7, 5.3.3, 5.3.9.1, 5.6.2.6, 5.6.2.9, 5.6.8.3, 7.16.1
• Reviewing Financial Reports	5.5
• Statement of Accounting Policies	5.2.3.3, 7.16.1, 7.17.1
• Statements of Expenditures (SOE)	3.4.3.1.7, 3.4.3.6.5, 4.2.8.6.4, 5.3.3.3, 5.3.3.10, 5.4.3.9, 5.6.9
• Statements of Expenses (or Cash Payments)	5.3.3.3, 5.3.3.6, 5.3.3.15, 5.3.6.2
• Statements of Income (or Cash Receipts)	5.3.3.3, 5.3.3.5, 5.3.3.15, 5.3.6.2

Financial Viability and Sustainability	3.5, 3.6.1.2, 3.6.2.1.4, 3.6.2.6.1, 3.6.3.1.5, 4.2.1.5, 4.2.4.1.2, 4.2.7.2, 4.3.1.2, 4.3.2.2.2, 4.3.3.1.5, 4.4.5.1.1, 4.4.5.3.1, 4.4.5.4
Financing Plans	3.4.2.1, 3.4.6, 3.4.7.5, 3.5.2.2.2, 3.6.2.3.3, 3.7.3.1.1, 3.7.3.6.1, 3.7.3.6.2, 4.3.4.3.1, 4.3.4.6.3, 4.3.6.2.1, 4.3.4.10, 7.6.3, 7.9.1.8
Forecasting	3.1.2, 3.4, 3.5.1.4, 3.7.4.1.4, 4.1.1, 4.3.4.4, 4.3.5.1.1, 4.3.6, 4.3.7, 7.16.2
• Assumptions	3.4.3.6, 3.4.4.3.4, 3.5.1.4, 3.7.3.6.5, 4.3.4.7.2, 4.3.6.1.6, 4.3.7
• Constant Prices	4.3.6.3
• Current Prices	3.4.4.4.1, 4.3.6.1.1, 4.3.6.1.5, 4.3.6.2.1
• Real Prices	4.3.6.2
G	
Governance	1.2.1, 4.2.1.5, 4.2.3
Government Accounting	4.2.9.3, 4.2.9.6.5
I	
Implementing Agency (IA)	1.4.8, 2.4.4, 4.1.6, 4.2.6, 4.2.8.8.4, 5.2.3.1.2, 5.2.3.4.1, 5.3.1.5, 5.3.3.1, 5.3.3.3,
Institutions and Systems	4.2
Internal Auditing	4.2.8.7.1, 4.2.8.9.1, 4.2.8.10.2, 5.4.7.7, 6.4.4.3.1, 7.10.1.4.2
Internal Control Systems	2.4.2, 4.2.8.6.3, 5.4.2.1, 5.4.3.9, 7.7.1.4.1, 7.18.2
International Accounting Standards (IASs)	2.4.3, 2.4.4, 4.3.4.4.5, 4.4.5.8.1, 5.2.1.2, 5.2.2, 5.2.3.5.2, 7.4, 7.9.1.3.5, 7.18.5
International Accounting Standards Board (IASB)	1.2.1, 1.1.6, 5.2.1.2, 5.2.3.5.2, 7.1.1.1
International Accounting Standards Committee (IASC)	5.2.2.2
International Federation of Accountants (IFAC)	1.2.1, 5.4.2.2, 5.4.9.1, 7.1.1.1
International Standards on Auditing (ISAs)	1.2.1, 5.4.9, 7.5, 5.4.2.2, 5.4.7.2

Investment Projects 1.1.2, 1.3.8, 1.4.3, 2.3.1, 3.1, 3.2, 4.4.6.2.1, 5.1.2, 7.7.1.2.2, 7.8.1.2.3, 7.9.1.2.2, 7.10.1.2.3

L

Loan Covenants 3.1.2, 3.6, 4.3.1.2, 4.4.5.3.3, 4.4.6.3.3, 5.3.2.2, 5.4.3.3, 5.5.1.1, 5.6.1.1, 5.6.4

- Capital Structure 3.6.3, 7.13
 - Debt Equity Ratio Covenant 3.6.3.4
 - Debt Limitation Covenant 3.6.3.5
 - Debt Service Coverage 3.6.3.3
 - Financing Leases 3.6.3.2, 3.6.3.2.3
 - Restricting the Use of Loan Funds 3.6.3.2.5
 - Short Term Debt 3.6.3.2.1
- Liquidity 3.6.4, 7.14
 - Current Ratio Covenant 3.6.4.2
 - Dividend Limitation Covenant 3.6.4.4
 - Quick Ratio Covenant 3.6.4.3, 7.14.2
- Operating
 - Breakeven Covenant 3.6.2.6, 7.12.5
 - Operating Ratio Covenant 3.6.2.5
 - Rate of Return Covenant 3.6.2.2
 - Self-financing Ratio Covenant 3.6.2.3

Loan Negotiations 2.9, 3.6.3.6.3, 4.2.1.3, 4.2.6.1.3, 4.2.8.4.3, 4.2.8.5.2, 4.2.8.9.3, 4.3.4.4.8, 4.3.6.1.1, 4.4.2.2, 4.4.5.3.1, 4.4.5.4.1, 5.2.3.1.2, 5.2.3.1.3, 5.3.1.1

Loan Preparation 2.7

M

Management and Cost Accounting 4.2.8.1.8, 4.2.8.10, 4.2.8.10.5, 7.18.2, 4.2.8.10.2, 4.4.5.8.1

Measuring Performance 4.1.4, 4.4, 4.4.2, 6.4.4.1.2

- Indicators 3.6.1.3, 4.3.2.3.2, 4.3.2.4, 4.3.4.2.1, 4.4.2.1, 4.4.3, 4.4.4, 4.4.5, 4.4.6, 6.4.4.7.1, 6.6.3, 7.7.1.6.3, 7.8.1.8.1, 7.9.1.9, 7.10.1.6.18
- Selecting Indicators 4.4.5

Microfinance Institutions 6.4.2, 6.6.4

• Financial Reporting and Auditing Issues	6.6.4
• PEARLS methodology	6.4.2.1, 6.4.2.2
Multilateral Investment Guarantee Agency (MIGA)	3.4.4.4.5
N	
Non-Revenue-Earning Projects and EAs	3.2.2, 3.4.6.3, 4.2.6.1.6, 4.2.9, 4.3.1.1, 4.3.2.2.8, 4.3.5.3, 5.3.2.1, 5.3.3.1, 5.3.6, 5.3.10, 5.6.3.1, 7.7
O	
• List of OMs	7.2.1
• OM 35	2.6.3, 2.8.1, 4.2.1.1
• OM 43	2.7.1, 2.8.1, 5.3.1.1
• OM 54	1.2.1, 2.7.1, 4.2.3
P	
• Project Administration Instructions	
• List	7.3.1
• PAI 1.02	2.7.1, 2.10.1, 3.7.4.1.3
• PAI 1.05	3.7.4.1.3
• PAI 3.02	3.7.4.1.3
• PAI 5.07	3.7.4.1.3
• PAI 5.08	2.10.1, 3.7.4.1.3
• PAI 5.09	2.10.1, 3.7.4.1.3, 5.5.1, 5.5.2.3, 5.5.4.2
• PAI 5.10	2.10.1, 5.3.2.4, 5.3.2.7
• PAI 6.02	2.7.1, 2.10.1, 3.7.4.1.3
• PAI 6.03	2.10.1, 3.7.4.1.3
• PAI 6.06	2.10.1, 3.7.4.1.3
• PAI 6.07	2.11.1, 3.7.4.1.3
PPTA Resources	2.3.3, 2.6.3, 3.7.2
Private Sector	1.1.5, 2.2.3, 2.4.4, 2.6, 3.3.3, 4.2.6.1.1, 4.2.7.5, 4.2.8.1.1, 4.3.2.1.1, 4.3.2.3, 4.3.3.2.1, 4.4.3.1, 5.2.3.1.3, 5.3.3.3, 7.9, 7.9.1.8
Private Sector Loans	2.3
Program Loans	2.2.3, 2.3
Project Completion Report (PCR)	2.11, 3.7.4.2
Project Cost Estimate Table	3.4.3

Project File	1.5, 3.7.4.1.2, 4.3.4.4.7, 4.3.7.2, 4.4.3.5, 4.4.6.1.6
Project Identification	2.5.1, 2.6.3, 3.2.1.1, 3.4.1.1, 3.4.3.5.2, 4.2.8.1.8, 4.2.9.3.6, 5.2.3.4.1, 5.3.1.3, 5.4.1.5, 5.4.9.5, 7.7.1.1.2, 7.9.1.1.2, 7.10.1.1.2
Project Investments	
• Possible non-revenue-earning projects	3.2.2
• Possible revenue-earning projects	3.2.1
Project Loans	2.2.3
R	
Retroactive Financing	3.4.3.5, 4.2.8.6.4, 5.3.2.4, 7.2.1,
Revenue-Earning Projects and EAs	2.4.3, 3.1.2, 3.2.1, 4.1.4, 4.2.8, 4.3.1.3, 4.3.2.2, 4.3.8.5.2, 5.3.3.3, 5.3.7, 5.3.9, 5.6.3.2, 7.8
Risk Analysis	2.7, 3.5.4, 6.3.4.1.4, 6.4.4, 7.11
S	
Sector Loans	2.2.3, 2.3.1, 3.4.3.3.4, 7.11.4.2
Sensitivity Analysis	3.4.4.1.8, 3.4.4.4.4, 3.4.6.3, 3.5.1.4, 3.5.4, 3.7.3.3.1, 4.3.4.10.3, 4.3.6.2.3, 7.11
Subsidies	3.4.6.5, 3.4.6.6, 3.6.1.3, 3.6.2.6.2, 3.7.3.6.7, 4.3.3.1.9, 4.3.4.10.4, 4.4.6.5.2, 5.3.10.2, 6.2.2.2, 6.2.5, 7.12.1
T	
Tariffs	3.6.1.9, 3.7.3.6.7, 4.3.2.2.6, 4.3.3, 7.9.1.5.2
Taxes and Duties	3.4.3.4, 3.4.3.6, 3.4.7.3, 4.3.4.5.3, 5.2.3.5.2, 5.3.7.5, 7.10.1.5
W	
Weighted Average Cost of Capital (WACC)	3.5.1.4, 3.5.2