FINANCIAL DUE DILIGENCE FOR FINANCIAL INTERMEDIARIES

TECHNICAL GUIDANCE NOTE

DECEMBER 2018

ASIAN DEVELOPMENT BANK

ADB

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www.adb.org

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ISBN 978-92-9261-452-2 (print), 978-92-9261-453-9 (electronic)
Publication Stock No. TIM189793-2
DOI: http://dx.doi.org/10.22617/TIM189793-2

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ABOUT THIS PUBLICATION

This technical guidance note is one in a series issued to facilitate Asian Development Bank (ADB) staff, staff of the executing and implementing agencies, and consultants in conducting financial due diligence of ADB-supported projects.

The following is a list of guidance materials on financial due diligence issued by the Procurement, Portfolio, and Financial Management Department, ADB, and shows their applicability in the ADB project cycle:

Guidance Material	Medium Term Strategic Planning		Processing			Implementation	Project Close
	CPS	COBP	Concept Stage	Fact Finding	RRP	PAM	PCR
Guidelines on the financial management and analysis of projects	×	×	✓	✓	✓	✓	✓
Handbook for borrowers on the financial management and analysis of projects	×	×	✓	✓	✓	✓	✓
Financial analysis and evaluation	×	×	✓	✓	✓	×	×
Financial management assessment	×	×	✓	✓	✓	×	×
Guidance on using the apfs checklist	×	×	×	×	×	✓	✓
Preparing cost estimates	×	×	✓	✓	✓	×	×

continued on next page

Table *continued*

Guidance Material	Medium Term Strategic Planning		Processing			Implementation	Project Close
	CPS	COBP	Concept Stage	Fact Finding	RRP	PAM	PCR
Project financial reporting and auditing	×	×	×	×	✓	✓	✓
Preparing a country audit strategy	✓	✓	×	×	×	×	×

COBP=Country Operations Business Plan, CPS=country partnership strategy, PAM=project administration manual, PCR=project completion report, RRP=report and recommendation of the President.

Objective

This guidance note is intended to assist stakeholders by elaborating on and explaining ADB's financial due diligence requirements for borrowers and grant recipients of financial intermediaries.

Living Document

This guidance note is intended to be a living document and will be revised as required.

The Reader

In many circumstances, readers are expected to use this guidance note in a manner unique to their needs. For consistency throughout the guidance notes, the following assumption is made about the reader:

The reader is a professional involved in activities financed in whole or in part by an ADB loan or grant, or by ADB-administered funds.

FAQs

Frequently asked questions, clarifications, examples, additional information, links to training, and other useful resources will be made available on the ADB website.

Legal and Order of Priority

In the event of any discrepancy between this guidance note and legal agreements, the latter will prevail. The legal agreement governs the legal relationships between the borrower and ADB.

ABBREVIATIONS

ADB	—	Asian Development Bank
BIS	—	Bank of International Settlements
CAELS	—	capital adequacy, asset quality, earnings quality, liquidity and sensitivity
CAMELS	—	capital adequacy, asset quality, management quality, earnings quality, liquidity and sensitivity
CAR	—	capital adequacy ratio (sometimes called as capital-to-risk-weighted assets ratio or CRAR)
CRO	—	chief risk officer
EA	—	executing agency
FDD	—	financial due diligence
FI	—	financial intermediary
FIL	—	financial intermediation loan
FMA	—	financial management assessment
GNPA	—	gross nonperforming assets
IA	—	implementing agency
MFI	—	microfinance institution
NPA	—	nonperforming asset
PCR	—	provision coverage ratio
PFI	—	participating financial intermediary
RWA	—	risk-weighted assets
TGN	—	technical guidance note

EXECUTIVE SUMMARY

Financial intermediaries (FIs) provide loans, credit enhancement services such as guarantees, and equity contributions to individuals and businesses in various sectors such as agriculture, infrastructure, utilities, housing, manufacturing industry and other industries or services. Microfinance institutions (MFIs) form a special subcategory and are characterized by their operation in high interest rate scenarios, with numerous small-value loans, low-quality (or no) collaterals and short-term lending (typically a few months to a year).

The Asian Development Bank (ADB) offers sovereign financial intermediation loan (FIL) which may either be (a) a direct loan to one or more participating financial intermediary (PFI) with a sovereign guarantee; or (b) a multitier structure, where the principal borrower is the sovereign or the apex financial institution, which then relends the loan proceeds to one or more PFIs. The PFIs assume the credit risk while onlending to the final subborrowers.

The objectives of the financial due diligence (FDD) of a PFI is to assess the financial sustainability of both the ADB project and the PFI and conclude on the latter's eligibility for an ADB project, based on several criteria including its financial and risk management capacity.

ADB's requirements for FILs are included in section D6 of the Operations Manual.[1] Compliance with section C5 of the Operations Manual is also required.[2]

The FDD for an FIL comprises two major assessments—institutional and financial performance. The institutional assessment covers corporate governance, risk management, and policy frameworks. The financial performance assessment identifies the financial and operating risks faced by the PFIs and the areas that may need strengthening. The financial performance assessment is performed through the capital adequacy, asset quality, management quality, earnings quality, liquidity and sensitivity (CAMELS) framework, which is commonly adopted by financial analysts for FI assessments. In addition, the extent to which the FI will receive support from its affiliates and group companies, or the sovereign, or will need to support the said affiliates and group companies, needs to be assessed.

Assessing MFIs requires specialized knowledge of the country and sector in which they operate, as the challenges faced by MFIs are different from those faced by FIs.

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[1] ADB. 2003. Financial Intermediation Loans. *Operations Manual. OM section D6/BP*. Manila.

[2] ADB. 2010. Anticorruption. *Operations Manual. OM section C5/BP.* Manila.

I. Introduction and Purpose

1.1 Financial intermediaries (FIs) provide loans, credit enhancement services such as guarantees, and equity contributions to individuals and businesses in various sectors such as agriculture, infrastructure, utilities, housing, manufacturing industry and other industries, or services. FIs do not own or operate the assets that they finance. To remain sustainable, FIs need to generate a positive interest rate spread (the difference between lending and borrowing rates) to cover their operating costs, including provisions for bad and doubtful debts, and generate a surplus. The Asian Development Bank (ADB) offers sovereign financial intermediation loans (FIL) which may either be a (i) direct loan to one or more participating financial intermediaries (PFIs) with a sovereign guarantee; or (ii) multitier structure, where the principal borrower is the sovereign or the apex financial institution, which then relends the loan proceeds to one or more PFIs. The PFIs assume the credit risk while onlending to the final subborrowers.

1.2 ADB adopted the FIL modality to reach unserved or underserved segments of the market efficiently. Typically, FILs seek to address expansion of credit availability and thereby promote regional development or trade facilitation, poverty reduction, or employment.

1.3 The characteristics of FIs differ by market segments, e.g., full-service commercial banks; specialized banks (such as agricultural banks, regional rural banks, infrastructure lending companies and societies); sovereign wealth funds, insurance companies; leasing companies; and mutual funds. Microfinance institutions form a special subcategory of FIs and are characterized by their operation in high interest rate scenarios, with numerous small-value loans, low-quality (or no) collaterals and short-term lending (typically a few months to a year).

1.4 The ADB project team performs financial due diligence (FDD) to assess the financial management capacity, and the financial viability and/or sustainability of the project and the entity. FDD should use a combination of primary and secondary data. The maximum use of publicly available secondary data is encouraged. Secondary data sources include the following:

- FI website and literature;
- regulatory databases;
- credit rating reports by international and national agencies;
- earlier assessments by ADB of the same FI;
- recent (less than 3 years) assessments by other development partners; and

- any assessments or information available with the Private Sector Operations Department (PSOD), where ADB is already engaged with that FI.[3]

1.5 The purpose of this technical guidance note (TGN) is to provide guidance to ADB staff, consultants, and executing and implementing agencies on ADB's requirements and good practices to be followed when performing FDD for FIs for sovereign operations.[4] This TGN replaces Chapter 6 of the Financial Management and Analysis of Projects' Guidelines.[5] However, the TGN is neither a substitute for the exercise of sound professional judgment nor a rule book addressing all possible situations.[6] ADB's requirements for FILs are included in section D6 of the Operations Manual (OM D6/BP).[7] Definitions of key terms are in Appendix 1.

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[3] This is subject to confidentiality clauses under the agreement of PSOD with the entity.

[4] This guidance note does not apply to nonsovereign operations. However, in the principle of One ADB, staff processing nonsovereign transactions may refer to this guidance for good practice.

[5] ADB. 2005. *Financial Management and Analysis of Projects.* Manila.

[6] In complex situations, staff is encouraged to consult with the Public Financial Management Division of the Procurement, Portfolio and Financial Management Department.

[7] ADB. 2003. Financial Intermediation Loans. *Operations Manual. Section D6/BP.* Manila.

II. Policy Requirements

2.1 Section OM D6/BP of the Asian Development Bank (ADB) Operations Manual provides guidance in the design and processing of financial intermediation loans (FILs). Some key definitions include:

- The principal or subsidiary function is usually the provision of finance at the own risk of the financial intermediary (FI).
- A subloan is a loan on-lent by the participating financial intermediary (PFI) from the proceeds of an ADB-financed FIL to a final borrower (subborrower).
- A subborrower is an entity implementing an eligible subproject financed (at least, in part) by a subloan.
- PFIs may also use financial leases, whereby the lessee may use an asset owned by the lessor (the PFI) in exchange for specified periodic payments.

2.2 PFIs need to meet the following criteria:

(i) Financial soundness as evidenced by adequate capital, high-quality assets, sufficient liquidity, and profitability.
(ii) Adequate credit and risk management policies, operating systems, and procedures.
(iii) Compliance with prudential regulations, including exposure limits.
(iv) Acceptable corporate and financial governance and management practices, including transparent financial disclosure policies and practices.
(v) Sound business objectives, and strategy and/or plan.
(vi) Autonomy in lending and pricing decisions.
(vii) Adequate policies, systems, and procedures to assess and monitor the economic, social, and environmental impact of projects and subprojects in accordance with parameters established by ADB for this purpose.
(viii) Have or build up capacity to mobilize domestic resources.

2.3 New and existing FIs that do not meet all the eligibility criteria may still participate in an ADB-funded FIL subject to a time-bound action plan acceptable to ADB that will bring these PFIs into compliance with the criteria.[8] The action plan should have time-bound measurable and achievable targets (including interim milestones for plans spread over several years) strengthening key areas such as the appraisal process, funding levels, liquidity and capital adequacy levels, compliance with prudential norms, and governance and risk management practices. ADB may, on request, provide financial support and technical assistance to FIs for formulating a suitable action plan. Such action plans need to be monitored on an ongoing basis, and where progress is not satisfactory or critical milestones are not achieved, ADB will consider remedial action.[9]

2.4 In some cases, ADB allows PFIs to provide subloans that meet agreed criteria without prior ADB review or approval for amounts up to a "free limit." ADB requires PFIs to submit the first few subloan proposals under the FIL for prior review to satisfy itself about the quality of the PFI's project appraisal techniques and identify any areas for improvement. The free limit is decided on a case-by-case basis during FIL appraisal, considering the PFI's track record, management competence, appraisal standards, portfolio quality, average loan size, and the type and expected size of subloans under the FIL. For subprojects below the free limit, ADB reserves the right to review the proposal along with the environmental impact assessment or the initial environmental examination.

2.5 Compliance with the Staff Instructions on Integrity Due Diligence for Sovereign Operations and Cofinancing issued by the Office of Anticorruption and Integrity is required.[10] The due diligence should confirm that the FI has effective arrangements for Know-Your-Customer norms, anti-money laundering, and countering the financing of terrorism.

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[8] A PFI may participate in the program after it agrees to implement the time-bound action plan during the course of ADB project implementation.

[9] These remedial actions could range from, for example, revision of the time-bound action plans in the light of changed circumstances, discussions with the management of the PFI or the government to expedite actions, or suspension of the PFI from continued participation in the ADB project.

[10] ADB. 2010. Anticorruption. *Operations Manual. OM section C5/BP.* Manila.

III. Financial Due Diligence and Presentation

3.1 A financial intermediary (FI) is assessed using a combination of qualitative and quantitative factors. FI financial due diligence (FDD) will cover these factors through two major assessments—institutional and financial performance. Appendix 3 provides a detailed guide on how to conduct these assessments.

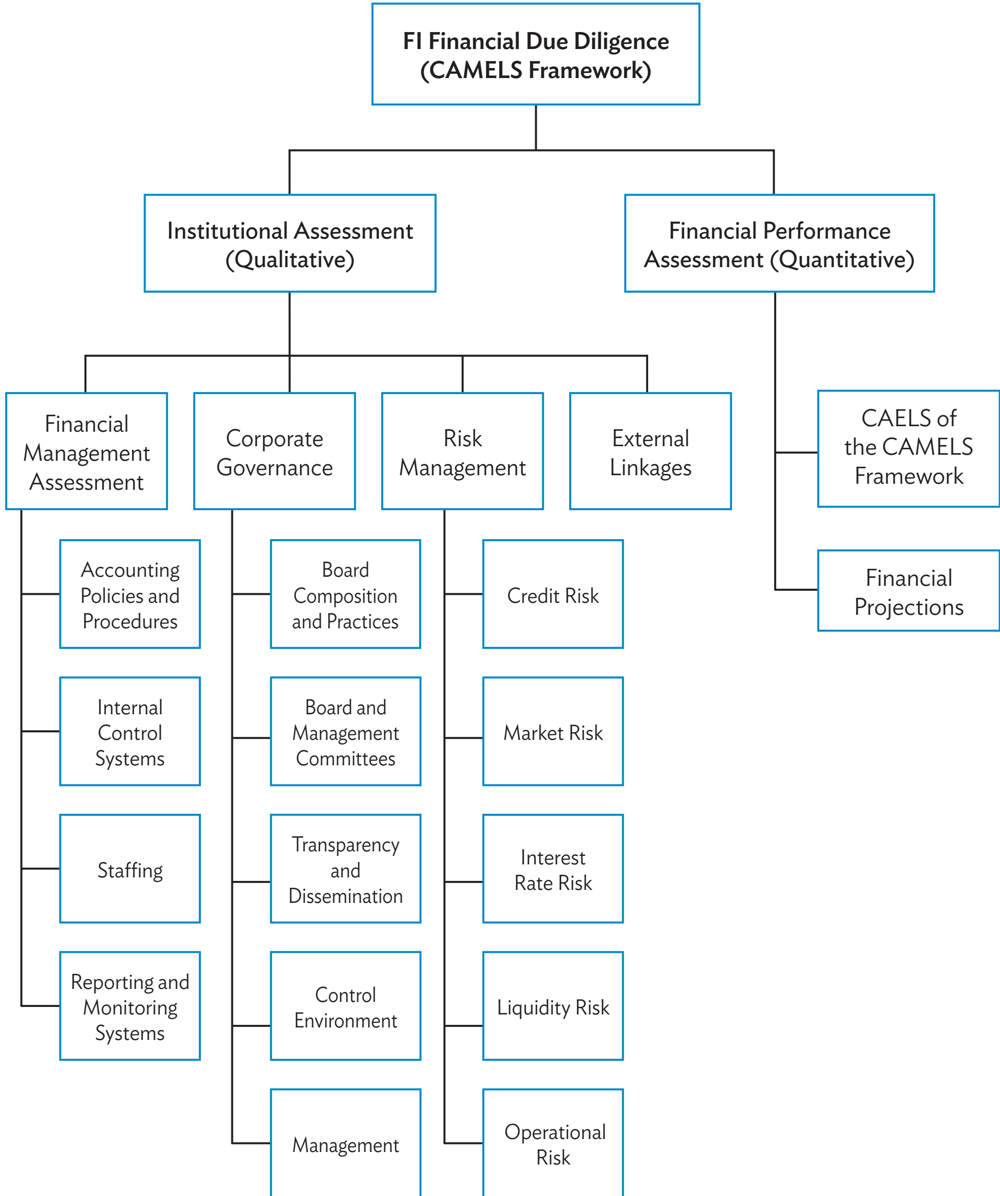
3.2 The institutional assessment covers financial management, corporate governance, and risk management, and identifies the financial and operating risks faced by the participating financial intermediaries (PFIs) and areas that may need strengthening. If the FI is part of a corporate group, the FDD should also consider any external linkages and its interconnectivity with other entities.

3.3 The financial performance assessment evaluates the likely financial sustainability of the FI by analyzing various financial data points. It is a quantitative assessment that should determine both the historical and the projected financial performance of the FI. The historical financial performance review helps evaluate the PFI's track record in (i) delivering subloans to achieve defined country/sector economic objectives, (ii) efficiently recovering subloans, and (iii) covering all operating and other costs to make a reasonable profit on the invested capital. Historical performance trends should be identified and analyzed. The capital adequacy, asset quality, management quality, earnings quality, liquidity and sensitivity (CAMELS) framework is commonly used by financial analysts to assess the historical financial performance of FIs. Financial projections help assess whether (i) the proposed credit line is sized appropriately considering the market demand and (ii) the PFI has the capacity to absorb the proposed credit line. Finally, the assessment will consider the support that the FI may receive from the sovereign, and its affiliate or group companies (or, alternatively, if it has any obligation to support its affiliate or group companies).

3.4 The management quality assessment is common for both FIs and microfinance institutions (MFIs) and is completed first; the financial performance is conducted on completion of the management quality assessment.

3.5 The FDD report should discuss the eligibility of the FI for an Asian Development Bank (ADB) project and ensure that the criteria outlined in section D6/BP (2003) of the ADB Operations Manual on Financial Intermediation Loans are met. Appendix 2 provides a sample outline of such a report.

Conducting Financial Due Diligence Using the CAMELS Framework



CAELS=capital adequacy, asset quality, earnings quality, liquidity and sensitivity;
CAMELS=capital adequacy, asset quality, management quality, earnings quality, liquidity and sensitivity; FI=financial intermediary.
Source: Asian Development Bank.

3.6 Most FIs are regulated, either by the central bank or a financial sector regulator, and mandated to comply with the prudential standards specified by the national regulator. The FDD report needs to discuss the following topics:

(i) the national regulator,
(ii) an analysis of the level of regulatory rigor and independence,
(iii) the prudential standards,
(iv) the FI's level of compliance with these prudential standards, and
(v) whether the regulator strictly enforces compliance.

3.7 For FILs, only the ADB financing amount is normally reported in the report and recommendation of the President. As the total cost of subprojects in a FIL cannot be ascertained up front, no cost table can be prepared providing details such as base cost, contingencies, and financial charges during implementation. These depend upon the individual subproject costs and financing plans, which are highly variable.

3.8 In multitier FILs, FDD would be conducted on PFIs that enter into a loan agreement with ADB. The assessment needs to ensure that the PFIs have adequate capacity to assess the credit risks of the next tier of FIs that will borrow from them, usually by incorporating selection criteria.

3.9 Unless the repayment structure for the ADB loan is on a back-to-back basis with the repayment structure of the underlying subloans, there will be a timing mismatch between the two cash flows. Often, the repayment period of the subloans is shorter, and the PFI would have partial repayments from its subborrowers available for redeployment, which have a carrying cost in terms of interest payable to ADB. This is especially relevant in the case of MFI lending, where the subloans are usually for a period of a few months to a year, whereas the ADB loan drawdown period would usually be 3–5 years, and repayment period may be 15 years. It would be more economical for the PFI to first redeploy the repayments received to minimize the carrying cost, before any additional drawdown from the ADB loan. The assessment should consider whether the demand is adequate to allow the PFI to continue drawing down the ADB loan funds after it redeploys the partial repayments. If the demand is adequate, the impact of the ADB loan can be much higher (e.g., ADB's loan may be on-lent more than once before the FI repays the loan to ADB, and thereby achieve a much wider coverage). If the demand is limited, the loan size may need to be reduced.

3.10 The project reporting needs to capture the full leverage obtained by ADB funds. The capacity of the PFIs to account, report, and audit these funds should be assessed as part of the due diligence exercise during the selection process, including tracking the redeployment of repayments.

IV. Institutional Assessment

A. Financial Management Assessment

4.1 The financial management assessment (FMA) is a critical part of the institutional assessment for a financial intermediary (FI). Irrespective of how well a project or program is designed, if the executing agency (EA) or implementing agency (IA) lacks the capacity to effectively manage its financial resources, implementation may be adversely affected, and the benefits of the project are less likely to be sustainable. Key aspects of the financial management system to be evaluated include fund flow arrangements, financial management resources and staffing, accounting policies and procedures, internal controls including segregation of duties, internal audit and safeguards over assets, external audit arrangements, and reporting and monitoring systems. The Institutional and Financial Management Assessment Questionnaire (Appendix 3) is an important tool for information gathering for this assessment.

4.2 The FMA is a risk-based assessment to identify (i) risks that may lead to nonachievement or suboptimal achievement of project outcomes and/or outputs; (ii) risk that, whether due to leakage or inefficiency, ADB resources may be used for purposes other than as intended; and (iii) severity of the risks. A time-bound financial management action plan needs to be developed to address key risks.

4.3 The FMA is intended to help improve project design either by helping FIs identify areas for institutional strengthening for better financial management, or designing project-specific financial management arrangements to ring-fence project finances from larger institutional risks during the implementation stage. The four key components of the FMA are (i) accounting policies and procedures, (ii) internal control systems, (iii) staffing capacity, and (iv) reporting and monitoring systems.

Accounting Policies and Procedures

4.4 It is important that the FI financial statements and disclosures are comprehensive and comply with the applicable financial reporting standards. The latest available externally audited financial statements should be reviewed to understand key accounting policies such as (i) income recognition, (ii) valuation of intangible and tangible fixed assets, (iii) classification of financial assets and liabilities, (iv) accounting for derivative financial instruments and hedges, and (v) recognition of nonperforming assets and provisioning.

4.5 Some other key elements to consider when reviewing financial statements include:

(i) whether annual reports have been published on time according to the statutory deadlines;
(ii) the severity of audit qualifications and the reasons thereof, and how they have been addressed;
(iii) comprehensiveness of the disclosures in the financial statements and compliance with applicable financial reporting standards;
(iv) any material changes in accounting policies and estimates and their frequency;
(v) regulatory audit inspection reports and findings; and
(vi) the extent of compliance with International Financial Reporting Standard 7 (or its national equivalent), "Financial Instruments: Disclosures," and International Financial Reporting Standard 9, "Financial Instruments."

4.6 The approved financial and accounting manual, if available, should be reviewed. A manual helps to ensure uniformity and consistency in the application of accounting policies by all staff, provides guidance to management on the application of accounting policies, and provides a key reference for internal and external auditors.

4.7 Wherever the existing accounting, reporting, and auditing capabilities are found wanting, the steps being taken by management to strengthen these processes should be understood. If additional support is needed to improve the accounting practices, this could be considered as part of the institutional strengthening component of the project.

Internal Control Systems

4.8 FIs need to have an appropriate internal control framework that is commensurate with the size and scale of operations. Internal control is the process by which the management structures an organization to (i) provide assurance to stakeholders that the entity operates effectively and efficiently, (ii) ensure a reliable financial reporting system, and (iii) comply with applicable laws and regulations. It provides a reasonable assurance that all transactions are recorded properly and in a timely manner. Elements of an effective internal control system include monitoring, control activities, information and communication, risk assessment, and the control environment. A well-functioning internal control framework ensures compliance with rules and regulations, attainment of operational objectives, and quality of financial reporting. Internal control systems comprise passive components, such as segregation of duties, and active components, such as an internal audit function.

Financial Management Resources and Staffing Capacity

4.9 The adequacy and quality of staff in key departments such as financial accounting, credit, treasury, and internal audit is essential. Key considerations for the FDD include whether (i) the staff possess relevant experience, skill levels and degree of expertise to undertake specialized business operations such as financial reporting and risk management; (ii) the number of staff is commensurate with the operational requirements; and (iii) the PFI has a clear staff training policy. In jurisdictions that apply International Financial Reporting Standards or their national equivalents, the FDD should assess whether an adequate number of qualified accounting staff are available, and the extent to which they undergo regular training to update their knowledge.

Reporting and Monitoring Systems

4.10 A robust internal reporting system is required to generate timely information for management and external stakeholders (e.g., entity-level statutory financial reports). In the dynamic environment in which FIs operate, delayed information can be expensive. The extent of importance attached to internal systems is indicated by who maintains them, the periodicity of review of such systems by senior management, and its role in strategic and operational decisions. A good system helps the FI to produce timely and accurate reports, thereby increasing market confidence in its governance practices.

4.11 The FDD also needs to evaluate the FI's cybersecurity arrangements to see how the FI protects itself against both internal and external threats, such as unauthorized access or malicious damage. This includes arrangements for safety and security of original data, and arrangements for disaster mitigation, in addition to regular security audits.

B. Corporate Governance

4.12 Corporate governance refers to how an organization is directed and controlled, and conducts its business. The Basel Committee on Banking Supervision Guidelines highlights that "governance weaknesses at banks that play a significant role in the financial system can result in the transmission of problems across the banking sector and the economy as a whole."[11] Effective corporate governance is critical in ensuring the proper functioning of the FI and safeguarding stakeholders' interest, in conformity with public interest on a sustainable basis. An understanding of national corporate governance rules and regulations is therefore imperative while carrying out financial due diligence for FIs. Most regulators utilize a "comply or explain" approach and need the FI to make a corporate governance statement as part of the FI's annual reports. A review of such statements would provide critical information related to corporate

[11] Bank of International Settlements (BIS). 2015. *Basel Committee on Banking Supervision Guidelines. Corporate Governance Principles for Banks.*

governance arrangements. National corporate governance requirements usually take into consideration most of these principles. The Basel Guidelines outline 13 core principles related to effective corporate governance which include guidance, among others, on

(i) board composition and practices,
(ii) board and management committees,
(iii) transparency and dissemination of information,
(iv) control environment, and
(v) management.

Board Composition and Practices

4.13 **Board qualifications, composition, rotation.** The board should individually and collectively have a balance of skills and experience to carry out its responsibilities, including independent directors who can minimize conflicts of interest and bring valuable new skills and experiences to the board. New members should be inducted and existing ones moved out periodically to provide newer perspectives and bring in new skills in line with the market. Members who are directors of other institutions provide a perspective, so long as they are not spreading themselves thin across multiple institutions and can effectively manage their conflict of interest (if any).

Board and Management Committees

4.14 The board may establish various committees to allow for deeper deliberations on critical issues. The most common key board committees are the Risk Committee, the Audit Committee, and the Remuneration Committee. Management may also establish other committees, such as an Asset Liability Management Committee and a Credit Committee. Some regulators also require committees for fraud monitoring, information technology strategy, customer service, corporate social responsibility, among others. Assessing the scope and functioning of these committees clarifies the governance and financial management practices of the PFI.[12]

Transparency and Dissemination of Information

4.15 The FI's corporate governance framework should ensure the timely and accurate disclosure of all key financial and nonfinancial information to all stakeholders "including the financial situation, performance, ownership, and governance" of the PFI.[13] The "disclosure should be accurate, clear and presented such that shareholders, depositors, other relevant stakeholders and market participants can consult the information easily."[14]

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12 Refer to Appendix 5 for more details on the role and responsibilities of these committees.
13 Organisation for Economic Co-operation and Development. 2015. *Principles of Corporate Governance*. Section V, p. 41.
14 BIS. 2015. *Basel Committee on Banking Supervision Guidelines. Corporate Governance Principles for Banks.*

Control Environment

4.16 **Risk management and compliance functions**. An effective and independent risk management function headed by a chief risk officer (CRO) is imperative. Importantly, the CRO should have "sufficient stature, independence, resources and access to the board."[14] In addition, an independent compliance function should exist to ensure that the FI always acts in accordance with applicable laws, rules, regulations, and the FI policy framework. Effective independent compliance and internal audit units act as a PFI's second and third line of defense, and report to the board of directors and audit committee. There should be no scope limitations for these units and they should be adequately resourced and staffed.

Management

4.17 It is necessary to assess management capacity to efficiently manage the operations of the PFI through various economic cycles. Planning plays an important role in this. The ability of the PFI management to put in place a vision for the future of the organization and realize the same at an operational level is critical. In addition to the qualitative assessment, a set of quantifiable indicators, including measurable hard indicators and observable soft indicators, needs to be evaluated. Key indicators include growth, productivity, market share, systems and processes, and confidence of the shareholders.[15] While performing this assessment, the extent to which the management has been able to achieve the financial targets set in earlier years would be a good indicator of management's capacity.

C. Risk Management Framework

4.18 Risk management is an ongoing and integral part of an FI's operations and includes risk identification, measurement, monitoring, and mitigation activities. An FI's risk management framework should be guided by Basel Committee Sound Principles.[16] These include fundamental principles addressing credit, market, interest rate, liquidity, and operational risks. This sets the organizational tone at the top and influences the FI's risk appetite, attitudes toward risk, and ethical values. A strong risk management framework comprises the risk committee of the board tasked with overall responsibility for a dedicated CRO, and units embedded within the business divisions responsible for continuous risk management, as well as the existence of a business continuity function.

4.19 An FI carries risks in various components of its balance sheet. A comprehensive assessment of the probability of risk and severity of impact is needed to realistically project the FI's performance. On the asset side of the balance sheet, the FI is primarily exposed to credit risk, interest rate risk, and market

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15 Refer to Appendix 5, Table A5.1 for more details.

16 Refer to the principles at the BIS site: credit risk -http://www.bis.org/publ/bcbs75.pdf; interest risk - www.bis.org/publ/bcbsca09.pdf; market risk -http://www.bis.org/bcbs/publ/d352.pdf.

risk. On the liability side, the primary risks are asset liability mismatch risk and liquidity risk. At an institutional level, foreign exchange risk, off-balance sheet risk, operational risk, and contagion risk are those that can create vulnerabilities.[17]

4.20 **Credit risk** is the risk of a loan becoming a nonperforming asset due to nonpayment of principal and/or interest. The consequence may be profitability pressures due to provisioning, and write-off in the short term and liquidity pressures in the long term. Mechanisms for mitigating credit risk include credit limits for maximum credit exposures, credit decision standards, collateral, risk transfers and netting, ongoing monitoring, and diversification.

4.21 FIs often use risk mitigating instruments such as credit swaps or derivatives. In such cases, the risk is either fully or partially transferred to the counterparty. Policies should be in place to ensure that the counterparty risk is acceptable. The counterparty risk assessment needs to be performed with the same rigor as that of the primary obligor. The exposure should be measured based on the pro-rata obligation of each of the counterparties. The overall risk rating and pricing of such instruments are normally linked to the weighted average risk score and the details of the underlying credit swap.

4.22 **Market risk** is the risk of losses in on- and off-balance sheet positions arising from adverse movement in market prices of commodities, foreign exchange, or bonds. A change in such prices can lead to significant impairment in asset valuations. To some extent, this risk can be mitigated by diversifying the investment portfolio across different asset classes within the limit of the investment policy. An experienced and well-trained investment team would help the FI to quickly respond to market movements.

4.23 **Interest rate risk** is the risk that an investment's value may change due to a change in the prevailing interest rates, or divergence between the borrowing and lending rates. Where FIs have on-lent to their borrowers at fixed rates, to protect their interest margins they need to closely monitor and manage the interest rate on their borrowings, which may be at floating rates. Mechanisms for mitigating market risk, therefore, include limit setting processes, risk sensitivities, stress testing, economic capital metrics, value at risk portfolio management, and hedging. Bond prices are highly sensitive to interest rate changes in the market, which can lead to abrupt mark-to-market losses.[18]

4.24 **Liquidity risk** refers to the FI having inadequate funds to meet immediate cash flow needs. This is also referred to as the asset-liability mismatch risk due to misalignment between the borrowing and lending terms. This risk can be particularly high for specialized FIs such as infrastructure or housing finance companies where the longer tenor of lending is often not matched by the

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[17] Also refer to the external credit rating assessments, if available, by international or national credit rating agencies.

[18] For example, an FI is holding bonds yielding 8% return. An increase in the interest rate will cause a notional impairment of the realizable value of such bonds, as the FI can only offload it in the market at a discount.

available funding sources, which tend to have shorter maturities. The analyst should understand the management policy toward asset–liability mismatch, the extent of open positions, and the access to quick sources of funding.[19] Financial markets are highly sensitive to liquidity stress and hence, regulators establish guidelines on liquidity stress. In assessing liquidity risk facing an FI, both the regulatory requirements and the FI management's philosophy on liquidity should be understood. The Basel III recommends additional ratios—liquidity ratio and net stable funding ratio–to address this risk.[20]

4.25 **Operational risk** is the potential for failure in relation to employees, information technology systems (including risks arising from cybercrime or unauthorized system access), technology, infrastructure failure, dealings with vendors, fraud and customer relationships, which could lead to adverse publicity and consequent reputational and financial losses. Operational risks are mitigated by well-designed and well-implemented policies that are supported by good processes and systems. The analyst needs to understand how the management measures operational risk and whether there have been any past instances of write-offs due to operational risks. The principles of operational risk are also specified in the Bank of International Settlements (BIS) website and provides useful guidance.[21] These core principles are

(i) lessons learned from the financial crisis,
(ii) operational risk culture,
(iii) operational risk management framework,
(iv) the role of the board of directors,
(v) operational risk appetite and tolerance,
(vi) risk management framework,
(vii) risk identification and measurement,
(viii) change management,
(ix) monitoring and reporting,
(x) control and mitigation,
(xi) resilience, and
(xii) continuity and disclosure.

D. External Linkages

4.26 If the FI is part of a corporate group, the analyst should, in addition to conducting the stand-alone evaluation, understand the interconnectivity of the FI with other entities within the group or the government. An appreciation of the interlinkages may help in evaluating any support or drain from these related entities.

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[19] Open positions refer to situations where, for any maturity bucket, the expected inflows are lower than the expected outflows. The gap will then have to be bridged using other sources of funding.

[20] Basel III liquidity coverage ratio specifies that the FI should have high-quality liquid assets which are greater than the expected outflows over the next 30-day period. The net stable funding ratio requires the FI to have long-term funding sources to be greater than long-term funding uses. The specifics of these ratios are detailed in the section on liquidity assessment.

[21] Refer to the BIS website for the principles on operational risk.

4.27 The analyst should evaluate the extent of support that the FI can expect from other group companies and/or affiliates. These companies should have willingness and the financial strength to provide meaningful support so that it could meet the FI's financial obligations. The support could be in the form of short-term loans, guarantees, or equity infusion. Support from a group company and/or affiliate cannot be automatically presumed, but can be assessed using a set of economic and moral tests.

Economic

(i) Capability to support,
(ii) extent of surplus cash available with the affiliate, and
(iii) affiliates' market standing or credit rating and its ability to raise money at short notice.

Moral

(i) Willingness to support,
(ii) shared name,
(iii) shared management, and
(iv) listing and regulatory perception of the group.

4.28 Conversely, the FI may need to support its affiliates. In such situations, the extent of such support should be built in and the consolidated ratios should be analyzed. If this materially changes the conclusion, then more in-depth analysis of affiliates and subsidiaries may be needed. The test for consolidation should be the interdependence of the entities, the past practices, and the significance of the financial liability. If there exists a very close correlation, the covenants and the loan modalities should factor in the overall consolidated position.

4.29 Sovereign ownership is not essential for state support nor is it guaranteed for state-owned FIs. Systemically important institutions are those that can affect market sentiments and cause panic if there is a perception of stress. In a stress situation, sovereign support may be forthcoming to these institutions to stem contagion risk, whether state-owned or otherwise. Similarly, institutions that have a large balance sheet or sizable public deposits are more likely to be supported with liquidity and/or capital injections. Sovereign support may take the form of direct financial support or indirect support through other state-owned institutions and may be accompanied by partial or total management change.

V. Financial Performance Assessment

A. CAMELS Model

5.1 Since 1988, the Basel Committee on Banking Supervision of Bank of the International Settlements (BIS) has recommended using the capital adequacy, asset quality, management quality, earnings quality, liquidity and sensitivity (CAMELS) framework for assessing a financial intermediary (FI).[22] The CAMELS model is widely accepted as a useful tool to evaluate banks and financial institutions worldwide, and was developed from the Uniform Financial Institutions Rating System used by regulators in the United States. It provides a comprehensive approach to FI evaluation by bringing together the various business variables that impact an FI. While the model itself is well discussed and is available on the BIS website, analysts should make sure that the tool is applied to an institution consistent with the type and role of the institution and its operating environment.[23] The subcomponents of the CAMELS model are discussed in detail in the following paragraphs.

Capital Adequacy (C of CAMELS)

5.2 Capital adequacy assesses the extent to which the FI is capitalized to meet its risk exposures and is measured by the ratio of capital to risk-weighted assets (RWA), defined as the capital adequacy ratio (CAR). RWA refers to the recalculation of the assets of an FI after assigning specific risk weights to each class of assets. Basel II defines capital as core capital (Tier I) and supplementary capital (Tier II). The CAR is the proportion of capital (core + supplementary) of an FI to its RWA. BIS periodically revises the total CAR limit, the definitions, the allowable instruments, as well as the percentages between the various tiers. Most national regulators adopt this with some time lag. Analysts need to understand the prevailing BIS prescriptions of CAR and the national regulatory guidelines to establish the level of forbearance in the country. Table 1 provides more details on the Basel II and Basel III guidelines on capital.

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22 The Basel Committee on Banking Supervision periodically recommends norms that aim to strengthen banking supervision. The adoption timelines and the rigor vary from country to country and depends mostly on the regulatory thinking and independence. As of the date of publication of this technical guidance note, Basel II norms are more widely adopted. Basel III, which most countries are looking to adopt by 2019, prescribe certain additional requirements.

23 BIS website: www.bis.org.

Table 1: Capital Requirements in Basel II and Basel III

Parameter	Basel II	Basel III
CAR	8%	8%
Tier I capital[a]	4%	6%
Tier I capital split	No split	Core equity 4.5% Additional common equity 1.5%
Tier II capital[a]	100% of Tier I	100% of Tier I
Tier III capital[a]	Not defined	250% of Tier I

CAR=capital adequacy ratio.

[a] Refer to Appendix 1 for definitions of these terms.

Source: Asian Development Bank.

5.3 An FI is in the business of taking and managing risks, and all the assets on its balance sheet carry a risk. The risk quotient of each class of asset may differ depending on the probability of default, which is determined based on the rating of the asset. Basel recommends either a standardized approach or an internal rating-based approach for assessing the probability of default. In the case of a standardized approach, all institutions may use the ratings announced by the regulator or published by a recognized rating agency. In the case of internal rating-based approach, the FIs may use their internal rating methodology to arrive at this rating.

5.4 FIs also have off-balance sheet or contingent liabilities, which are recognized as liabilities if an adverse event occurs.[24] Contingent liabilities also carry a risk weight. The asset composition of an FI is a key determinant of the capital adequacy of the institution. The RWA can differ between two FIs with same level of assets, depending on the risk weightage of the underlying assets. Table 2 shows an example of the portfolios of two FIs adjusted for risk weights.

Table 2: Example of Portfolios of Two Financial Intermediaries Adjusted for Risk Weights

	FI 1			FI 2		
Assets	Book value	Specified risk weight by regulator	RWA	Book value	Specified risk weight by regulator	RWA
			(Amounts in $ million)			
Cash and cash equivalents	100	0%	0	50	0%	0

continued on next page

[24] Guarantees given to third parties on behalf of clients are a common contingent liability. If the client defaults, the FI will need to fulfill the obligation.

Table 2 *continued*

	FI 1			FI 2		
Assets	**Book value**	**Specified risk weight by regulator**	**RWA**	**Book value**	**Specified risk weight by regulator**	**RWA**
			(Amounts in $ million)			
Interbank lending	100	20%	20	100	20%	20
Real estate lending	100	150%	150	150	150%	225
Corporate lending						
AA and above rated	100	75%	75	50	75%	38
BBB- to A+	100	125%	125	150	125%	188
< BBB-	100	200%	200	50	200%	100
Retail lending	100	150%	150	150	150%	225
Total Assets	**700**		**720**	**700**		**795**

FI= financial intermediary, RWA= risk-weighted assets.
Source: Asian Development Bank.

5.5 Country-specific regulatory requirements for CAR may differ both in terms of the total ratio and the proportion of Tier I and Tier II capital. The types of instruments that are allowable under Tier I and Tier II can also vary. Analysts need to understand the risk weights specified for the various asset classes.

5.6 At a minimum, CAR needs to be maintained according to national prudential standards. The extent of regulatory forbearance (for example, in asset recognition and provisioning norms) and the macroeconomic context may require the analyst to suggest a higher CAR covenant for ADB loans above the regulatory minimum for a participating financial intermediary (PFI). The extent of such a buffer may depend, among other things, upon the portfolio quality and maturity of the regulator. While reviewing the financial projections of the FI, the analyst should assess the factors to which the CAR is sensitive.

5.7 Basel III has prescribed two additional capital measures—a mandatory capital conservation buffer and an optional countercyclical buffer. CAR can come under pressure when the asset growth is high due to a buoyant economy and consequent credit demand. To counter this, Basel III has prescribed an additional discretionary countercyclical buffer that can be imposed by the regulators. During periods of high credit growth, an FI may be required to strengthen its Tier I capital either by infusing fresh equity or by reducing its capital outflows in the form of dividends.

Asset Quality (A of CAMELS)

5.8 Asset quality is a key barometer for measuring the financial health of an FI and reflects the quality of management.[25] In a difficult environment, how two different institutions grow and manage assets can be a good indicator of the effectiveness of their respective management skills. Asset quality refers to the propensity of the underlying assets to maintain their value during their life. This applies to both loan and investment assets. Assets are classified into standard assets (or performing assets) and nonperforming assets (NPAs). Loan assets that meet interest and principal repayment obligations on time are performing assets.

5.9 NPA recognition should be primarily driven by asset quality and the possibility of recovery, though a good indicator is the aging and days past due. A loan that defaults in part or in full on timely payment of its obligations —interest, principal, or both —is an NPA. A restructured asset is one for which the FI and the borrower agree to reschedule the interest and/or principal payments to help the borrower tide over genuine business obstacles. A restructured asset should be considered a performing asset only if the borrower has the capability to pay as per the revised schedule. Restructuring for the sake of avoidance of an NPA is a red flag on asset quality. The quality of an investment asset deteriorates when there is an impairment of the realizable value of the investment.

5.10 Maintenance of consistent asset quality with steady growth in assets indicates strong management and robust appraisal techniques. Ideally, the asset quality should be consistent with macroeconomic factors and comparable to the peer group. Asset quality that is substantially lower than that of the peer group, showing a downward trend or significant year-on-year volatility, is a cause for concern.[26]

5.11 NPAs affect an FI in multiple ways.[27]

Quantitative:

(i) The institution does not get the money back from existing borrowers on time and may have to borrow from the market to make new loans.
(ii) The earnings estimated from these loans may not materialize, affecting profitability.
(iii) The PFI may have to provide for these loans, which will impact their profitability and capital adequacy.
(iv) Short-term liquidity may be stressed as the cash flows from repayments may be lower than estimated. This can, in turn, affect PFI's own repayments.

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[25] Refer to Appendix 5, Table A5.2, for more details.
[26] A useful source for peer comparison are the Banking Sector Outlook published periodically by many rating agencies.
[27] Refer to Appendix 5, Table A5.3 for more details.

Qualitative:

(i) The pursuit of delinquent borrowers will require considerable managerial time and effort.
(ii) The loss of morale and confidence of the FI staff in processing new loans.
(iii) The loss of market reputation and, in some cases, deterioration in market capitalization.

5.12 NPAs are classified into substandard, doubtful, and loss assets. The probability of recovery is normally decided by the credit department based on the performance of the borrower, asset cover, the period of overdue, and the recovery efforts. If efforts to recover the dues fail, the asset slips into doubtful and eventually becomes a loss asset. Restructured assets are technically NPAs, as they have defaulted once, but FIs may be understating NPAs by classifying them as restructured rather than nonperforming. While loan assets tend to slip gradually from substandard to loss grades, investment assets can turn into NPAs abruptly, often due to an impairment of the value of the investment due to market conditions.

5.13 Regulators usually specify the timeline for recognizing an asset as substandard, doubtful, or loss, and commensurate provisioning requirements. The regulatory guidance should be the minimum and PFI management may choose to be more conservative in this aspect.[28] The analyst needs to evaluate if this is indicative of better management, or a risk-averse management that is limiting business growth. The analyst also needs to discuss with the FI management whether its practices are in line with national regulatory standards, which are recognized by ADB as valid norms.

5.14 Provisioning for NPA should ideally be made at least on a quarterly basis, which is a usual reporting interval. However, common practice among PFIs is to push a higher part of the provisioning toward the last quarter of each financial year. There are two kinds of provisioning: specific and general. The specific provision is a calculated number against identified NPAs, taking cognizance of their aging and the likelihood of further slippage. General provisioning is done on standard (or performing) assets as a certain percentage of these assets.

5.15 The provision against NPAs increases gradually and is commensurate with the deterioration of asset quality, and eventually would cover the entire loan amount plus interest outstanding against that asset. Some NPAs can undergo a steep rather than gradual deterioration. In such cases, irrespective of the aging, the entire amount due from those assets is written off (or provided for) in the same year.

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[28] For example, a regulator may specify that an account must be categorized as an NPA if any interest and/or principal is overdue for more than 90 days. But if an FI chooses to treat 60 days past due as an NPA, then it might show higher NPA compared to its peers even though it has a more conservative approach.

5.16 The provisions made against NPAs are reported in the balance sheet as "loan loss reserves" or "loan loss provisions." While gross NPAs reveal the amount outstanding against NPAs, the net NPA is the amount of gross NPAs less the cumulative provision or loan loss reserves. From an analytical standpoint, the gross NPA indicates the size of the problem while the net NPA identifies the residual loss after netting off the provisions already made. These are measured as ratios (gross NPA or net NPA as a percentage of the loan portfolio).[29] A higher gross NPA ratio compared to peers indicates a weak credit appraisal process. The net NPA indicates the future provisioning requirements. The NPA ratio as a number may show an initial decline when the portfolio grows fast. As NPAs tend to grow in later years for any loan, it might be prudent to use a time lag factor and test the NPA ratio (Table 3).[30]

Table 3: Sample Calculation of Nonperforming Assets, with a Lag Effect

Item	Indicator
Gross NPA for year 1 ($ million)	100
Gross loans and advances Year 1	5,000
Gross NPA ratio	2%
Gross NPA for year 2 ($ million)	250
Gross loans and advances Year 2	15,000
Gross NPA ratio	1.67%
Time lag gross NPA (Year 2 NPA/Year 1 loans and advances)	5%

NPA=nonperforming asset.
Source: Asian Development Bank.

Management Quality (M of CAMELS)

5.17 Assessment of management quality is discussed under the governance and risk management framework sections of institutional assessments.

Earnings Quality (E of CAMELS)

5.18 The earnings quality defines the income earned by an FI from its various products and services. An earnings quality assessment helps the analyst to evaluate the consistency of the performance of an FI in maintaining its financial health and its track record of giving adequate returns to its lenders and shareholders. The earnings quality is measured through a standard set of ratios: return on average

[29] Refer to Appendix 5, Table A5.4 for more details

[30] The analyst should exercise professional judgment in defining the lag period. The objective is to identify a trend in this indicator.

assets, return on equity, net interest margin, interest spread, fee income, and yield on advances.[31]

Liquidity (L of CAMELS)

5.19 The PFI may have a sound asset portfolio but not all of it may be quickly convertible to cash. The 2008 financial crisis showed how liquidity is not only a panic trigger but also carries serious contagion risk. The close interlinkages between financial and other markets mean that vulnerabilities spread quickly through the financial system. Recognizing the need to strengthen liquidity in the FI balance sheet, Basel III introduced new ratios specifically addressing the liquidity issue. Major indicators are the loan-to-deposit ratio, low-cost deposit ratio, liquidity coverage ratio (Basel III), and net stable funding ratio. In some cases, the proportion of bulk deposits may be relevant, as these are more volatile than the usual deposits.[32]

Sensitivity (S of CAMELS)

5.20 The analyst should assess the sensitivity of financial performance to market risks. For instance, as a financial market player, the FI is exposed to interest rate changes. The ability of the FI to manage any changes in the interest rates, be it its own cost of funds or the rate at which it is lending, is a key determinant of its profitability and sustainability. An assessment of the ability of the FI to maintain its profitability under various scenarios helps to assess underlying strengths and vulnerable areas.

5.21 The first step in sensitivity analysis is to assess the factors to which the FI is vulnerable, which vary across FIs. While in some cases, capital could be an issue, in others, it could be asset quality or liquidity. Capital adequacy can be measured through elasticity of capital adequacy.[33] When developing sensitivity scenarios, it is advisable to model the adverse movements in the problematic areas rather than a generic scenario creation. Factors such as asset quality, capital, and costs can show a gradual deterioration, while interest rate fluctuations and foreign exchange exposures can have an immediate detrimental effect. Similarly, off-balance sheet exposures that translate into liability can materially affect the financial position of the FI.

5.22 Interest rate risk can impact an FI if there is a sudden shift in interest rates and there is a mismatch between its lending and borrowing rates. For example, the FI may have borrowed on a floating rate linked to a benchmark index while lending at a fixed rate. If the benchmark rate increases, the interest margin would be compressed with a rising cost not being met with any increase in revenue.

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[31] Refer to Appendix 5, Table A5.5 for more details.
[32] Refer to Appendix 5, Table A5.6 for more details.
[33] Refer to Appendix 5, Table A5.7 for more details.

5.23 Foreign exchange risk covers any open (unhedged) position that the FI carries due to a difference in the currency of borrowing and currency of lending. An FI is expected to build this risk in its pricing. Foreign exchange risk may be particularly relevant for the ADB loan as the FI needs to generate adequate returns on this line to maintain a positive interest spread.

5.24 The analyst should check the pricing methodology followed by the FI for onlending foreign currency loans, and if the FI takes any unhedged proprietary positions in the foreign exchange markets. In a hedged transaction, the FI would buy foreign currency at the risk and cost of its client and take no foreign exchange risk. In an unhedged transaction, the FI takes a position in a foreign currency at its own risk. If there is adverse currency movement, the FI may have to incur a loss by selling that currency or recognize a mark-to-market loss by holding on.

B. Financial Projections

5.25 The objective of assessing projected financial performance is to form a judgment on the sustainability of the ADB loan and the FI, and identify risks that need mitigation.[34] A business plan approved by the board of directors should form the basis for the projections. The analyst should understand these plans in terms of asset growth, sources of funding, geographical expansion, product and service offerings, and capital-raising plans.[35] Future performance should be projected based on key assumptions from the business plan and related to macroeconomic factors, anticipated changes in market share, and expected growth. The projected financial performance helps the analyst and the PFI management to agree on concrete steps, both in terms of financial benchmarks and governance or corporate policy related aspects.

5.26 The projected financial statements should be supported with detailed assumptions. Materiality and exposure determine the granularity of the underlying assumptions. For example, where the ADB lending is a small percentage of the overall borrowing but still large as an absolute quantum, or where the foreign exposure is not high but the ADB loan is one of the single largest exposures of the institution, a detailed analysis is warranted. The analyst should exercise discretion as to the level of detail in the projections without sacrificing the overall objective of this task.

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[34] The period of projections should ideally cover, at the minimum, the full drawdown period of the ADB loan to measure the full impact of the absorption of the ADB loan. However, this also depends upon the availability of business plans, and the analyst needs to use professional judgment in determining the projection period.

[35] Some business plans may be optimistic. The analyst should assess them for reasonableness in relation to macroeconomic indicators and the competitive environment.

VI. Covenants

6.1 The project design is tailored to mitigate the risks identified through the financial due diligence of participating financial intermediaries (PFIs). This may include covenants for institutional strengthening (e.g., formation or staffing of committees, improved procedures, safeguard systems) and numerical financial covenants. Typically, the financial covenants included in the legal agreements for financial intermediary loans (FILs) require the PFI to comply with the regulatory and prudential ratios and guidelines, where they are defined and enforced. In some cases, where a regulator does not exist, or the PFI is not regulated, ADB will develop suitable prudential ratios and incorporate them as covenants. Any covenants prescribed outside the country prudential framework need to be carefully designed to ensure that their compliance can be objectively measured.

6.2 Care should be taken to ensure that financial covenants reflected in the legal agreements are objectively defined and compliance can be verified through (i) audit by an independent auditor, (ii) annual audited entity financial statements of the FI, or (iii) reports to or by the central bank.

VII. Assessing Microfinance Institutions

7.1 Microfinance institutions (MFIs) serve an important social objective of including the unbanked poorer sections of the population that lack access to financial services. Unlike financial intermediaries (FIs), many MFIs operate as not-for-profit entities. They operate in high interest rate environments, with many small-value loans, low-quality (or no) collaterals, and offer short-term loans (a few months to a year). They operate in a challenging environment, with difficulties in effectively implementing the know-your-customer policies due to lack of identification documents for many of their clients, high administrative costs in delivering the service to small-value clients, and potential risks due to the low economic status of their clients. Due to the very short tenor of their loans, the performance and financial position of MFIs can change in as quickly as 2–3 months. MFIs are highly varied in their character depending upon the geography and sector in which they operate.

7.2 Reliable information about MFIs is difficult to obtain, as many of them are privately held and do not publish financial reports; also, not all of them are regulated and are less likely to be rated by credit rating agencies. MFIs are not attractive as long-term clients to large audit firms as the audit fees are quite low. Audit firms lack experience in auditing MFIs, which have very complex business models, and the techniques applied in auditing FIs may not be as effective. Due to these reasons, audited financial statements of MFIs are less informative and reliable, compared to FIs.

7.3 The capital adequacy, asset quality, management quality, earnings quality, liquidity and sensitivity (CAMELS) assessment methodology can be applied to MFIs with suitable adjustments.[36] Some of the key considerations are discussed in the following paragraphs.

A. Capital Adequacy

7.4 The regulator may prescribe a higher capital adequacy ratio (CAR) for MFIs due to the higher risk environment in which they operate. The leverage ratio, defined as risk-weighted assets/shareholders' funds and is the inverse of CAR, gives an indication of the reliance of the MFI on borrowed funds. If the regulator has prescribed any leverage cap, the MFI needs to operate within that cap.

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[36] There are many MFI assessment models, which are country- and sector-specific. The analyst should apply the most appropriate model for the MFI being evaluated.

7.5 MFIs, unlike their larger FI counterparts, have limited ability to raise capital at short notice, and may often depend on grants from the government. Capital should be evaluated on the following parameters: (i) size, (ii) whether it is internally generated or through fresh equity issues, and (iii) access to grants and donations.

7.6 The ability of the MFI to raise equity is determined by the following factors: (i) existing shareholding pattern, (ii) history of capital raised in the past and the market response to the same, (iii) market position and size of the MFI and the returns given to the shareholders, (iv) the track record of MFI with the financial and capital markets, and (v)the financial performance of the MFI and its reputation with equity market participants.

7.7 The quality and adequacy of reserves can be assessed by expressing the actual loan loss reserve as a proportion of the loan loss reserves required by the regulatory requirement or the policy of the MFI, whichever is higher.

B. Asset Quality

7.8 The asset quality in the MFI needs to be assessed with reference to the following factors: (i) geographical or sectoral concentration (e.g., the agriculture sector is subject to weather-induced risks); (ii) type of borrowers (e.g., individuals, self-help groups, or business enterprises); (iii) adherence to exposure limits; (iv) quality and value of collateral (if any); (v) purpose (e.g., consumption or productive); and (vi) historical performance. MFIs are also more susceptible to political risk (e.g., the intention to introduce debt waiver programs, interest ceilings, directed lending to particular sectors or groups of people) that can significantly affect asset quality. The analyst should keep in mind that MFIs may not have adequate systems or may be reluctant to recognize and provide for NPAs, and carefully validate the NPA recognition methodology.

C. Management Quality

7.9 Management quality is critical in an MFI as many of them start off as small institutions catering to local financing needs. Unlike large FIs, the regulatory supervision is less stringent, which means that most of the processes that the MFI puts in place depend entirely on the management of the MFI. The same approach followed for FIs can be followed in evaluating management quality in MFIs.[37]

[37] Some state-owned MFIs may not have an adequate number of independent directors on their boards. The analyst should take into consideration such limitations due to country context, while assessing the adequacy of corporate governance.

D. Earnings Quality

7.10 The earnings quality of an MFI is primarily linked to its loan portfolio. Unlike an FI, MFIs do not have access to multiple sources of income. The interest spread that the MFI makes largely depends on its ability to borrow at the right cost, and this can make a difference in its profitability. The earnings quality of an MFI can be assessed with reference to the return on equity, return on average assets, and operational efficiency. The operating costs for MFIs are typically much higher than for FIs, due to smaller loan size, wider geographical spreads, and higher monitoring requirements.

E. Liquidity

7.11 Liquidity is the ability to mobilize adequate cash resources quickly. As MFIs are often not-for-profit organizations, their access to finance may be predominantly from grants and government allocations. A broad-based and sustainable resourcing model is fundamental to the sustainable growth of an MFI. Also, access to multiple sources of funds may provide the MFI with an alternate source of finance and help it in managing the cost of funds. The following factors should be considered while evaluating the liquidity and funding aspects of an MFI:

(i) types and proportion of each type of funding;
(ii) weighted average cost of funding;
(iii) diversity of sources (e.g., FIs, banks, foreign funds, grants);
(iv) ability to monetize portfolio through securitization with reference to past performance;
(v) maturity profile of liabilities and mismatches, if any; and
(vi) financial flexibility (e.g., undrawn lines of credit, ability to raise ad hoc funds from group companies, banking relationships).

F. Sensitivity

7.12 The sensitivity analysis for MFIs should follow the same principles as for FIs, and identify key vulnerabilities and their potential impact on the MFI. Please refer to Chapter V for guidance on sensitivity analysis.

Appendix 1: Glossary

Bank for International Settlements (BIS)—the world's oldest international financial organization. The BIS has 60 member central banks, representing countries from around the world that together make up about 95% of the world's gross domestic product. Its head office is in Basel, Switzerland. The mission of the BIS is to serve central banks in their pursuit of monetary and financial stability, to foster international cooperation in those areas, and to act as a bank for central banks.

Basel Committee on Banking Supervision—provides a forum for regular cooperation on banking supervisory matters. Its objective is to enhance stakeholders' understanding of key supervisory issues and improve the quality of banking supervision worldwide.

Basel norms—norms specified by the BIS periodically for strengthening regulatory supervision worldwide. The first set of norms known as Basel I was introduced in 1988. These were further strengthened and broadened after Basel II accord was introduced in 2004. The financial crisis of 2008 necessitated a revisit of the Basel II norms, while an improvement over Basel I did not capture some of the risks in the financial markets. Hence, the Basel III regulations covering liquidity, capital, and leverage were introduced in 2010. Basel II norms are widely accepted and prevalent as systemic requirements in many countries, while the calendar for adoption of additional measures under Basel III varies from country to country.

CAMELS Model—framework normally followed for financial intermediary (FI) assessment and includes an evaluation of the capital adequacy, asset quality, management efficacy, earnings quality, liquidity and sensitivity (CAMELS).

Capital adequacy ratio (CAR) or capital-to-risk-weighted-assets ratio (or CRAR) are usually used interchangeably. The CAR is the proportion of capital to the risk-weighted assets of an FI. The Tier I CAR includes only the Tier I capital in the numerator. The Tier II CAR includes both Tier I and Tier II capital. The denominator in both cases is the risk-weighted assets.

Nonperforming assets—assets that do not perform as envisaged. In the context of a loan, a nonperforming loan is one that does not pay interest and/or principal as per the loan schedule and is past due. In the case of an investment asset, it is an asset that is worth less than its book value. Nonperforming assets (i) deteriorate in value over the period of their life cycle; (ii) lose value due to market or business conditions (e.g., the company shuts down or there is a management crisis);

and (iii) are restructured due to the borrower's inability to pay as per original schedule. In some institutions, restructured assets are not considered as NPAs as the repayment terms are changed and hence, technically there is no asset slippage.

Risk-weighted assets—refer to the recalibration of the assets of a borrower or grantee by an FI after assigning specific risk weights to each class of asset. The risk weights for each class of assets are usually defined by the regulator and are periodically updated or changed depending on the market.

Tier I capital—equity capital and disclosed reserves. Equity capital for this purpose includes issued, fully paid ordinary shares, common stock, and noncumulative perpetual preferred stock.

Tier II capital—includes (i) undisclosed reserves that have been routed through the profit and loss account; (ii) revaluation reserves if approved by the supervisory authority; (iii) general provisions or general loan loss reserves restricted to 1.25% of the risk-weighted assets; (iv) hybrid debt capital instruments; and (v) subordinated term debt. Tier II capital is limited to 100% of Tier I capital.

Tier III capital—comprises short-term subordinated debt raised for the sole purpose of meeting a proportion of the capital requirements of market risk. Tier III capital is restricted to 250% of Tier I capital. The Basel norms further state that for short-term subordinated debt to be eligible as Tier III capital, it needs, if circumstances demand, to be capable of becoming part of a bank's permanent capital and thus be available to absorb losses in the event of insolvency.

Appendix 2: Sample Outline of a Financial Due Diligence Report on a Participating Financial Intermediary

Illustrative guidance is referred to in paragraph 3.3 of the main text. Appendix 2 outlines the contents of a financial due diligence report conducted on a participating financial intermediary, as discussed in Chapter III of this technical guidance note.

A. Introduction and Overview

B. Institutional Overview

(i) Ownership structure

(a) Type of ownership and implications
(b) Crossholding and ultimate ownership
(c) Subsidiary/holding company issues
(d) Owners involved in the management

(ii) Institutional setup and comments

C. Macro Overview

(i) Sector assessment
(ii) Regulatory assessment

D. Financial Management Overview

(i) Financial reporting and auditing
(ii) Internal control environment
(iii) Internal audit function
(iv) External audit reports and issues
(v) Staffing (structure, adequacy, and capacity building)
(vi) Reporting and monitoring systems

E. Governance Structure

(i) Management quality

(a) Strategic focus
(b) Risk appetite
(c) Market position
(d) Quantitative indicators that define management quality

(ii) Regulatory requirements on corporate governance
(iii) Board composition and experience
(iv) Board committees (numbers, functions, and composition)
(v) Other governance-related issues (e.g., transparency and dissemination, and the control environment, etc.)

F. Risk Management Policies and Framework

(i) Risk management framework architecture
(ii) Existence of board risk committee
(iii) Chief risk officer
(iv) Measurement of risks
(v) Open positions in foreign exchange contracts
(vi) Off-balance sheet liabilities and/or hedging contracts
(vii) Systemic risk/economic risk/contagion risk
(viii) Overall value at risk

G. Compliance Framework

(i) Existence and independence of compliance function
(ii) Reporting lines
(iii) Staffing

H. Financial Performance Assessment

Historical performance analysis

(i) Capital adequacy
 (a) Quantitative assessment
 (b) Qualitative assessment
 (c) National standards versus Bank of International Settlements standards

(ii) Asset quality
 (a) Market position of the institution
 (b) Type of products/services
 (c) Ability to grow and past growth track record
 (d) Ability to absorb new lines of credit (this may be a qualitative assessment)
 (e) Quantitative assessment
 (f) Key ratios
 (g) Investment portfolio
 (h) Type of investments in the portfolio
 (i) Any stress on mark-to-market issues (may not be quantifiable)

(iii) Earnings quality
   (a) Earnings performance
   (b) Quality of earnings
   (c) Diversity of earnings
   (d) Key earnings ratio
   (e) Financial sustainability

(iv) Liquidity

I. Types of Funding

(i) Sources of funding
(ii) Stability of sources
(iii) Liquidity support (systemic, regulatory, others)
(iv) Resourcing capability
(v) Cost of various types of resources

J. Projections

(i) Analytical tables
(ii) Assumptions
(iii) Projected performance indicators

K. Findings from Sensitivity Analysis

L. Recommended Risk Mitigating Measures

M. Conclusion

Appendix 3: Institutional and Financial Management Assessment Questionnaire

This questionnaire should be used by the Asian Development Bank (ADB) reviewer to conduct an assessment of the institutional and financial performance of a financial intermediary (FI), as discussed in Chapter III of this technical guidance note. It is not intended for use as a self-assessment tool by the FI. The assessment helps reviewers reach a conclusion on the eligibility of the FI for an ADB project, and helps ensure that the criteria outlined in section D6 of the ADB Operations Manual, on Financial Intermediation Loans, are met.

This questionnaire should only be used as a tool to gather information during the institutional and financial management assessment, and to identify and describe potential risk events. Risk rating should be done separately through an assessment of their likelihood and impact. Additional questions may be asked as necessary.

Institutional Assessment			
Topic	**Questions**	**Information Sources**	**Risks Identified**
1. Macro Context			
1.1 Economic Context			
Size of the economy Number and size of institutions Public policy toward FI Political situation Fiscal situation	How has the economy been growing? What are the main GDP drivers? Is the finance ministry and financial regulator proactive? What is the inflation and bank lending rate? Is the economy susceptible to fluctuating foreign exchange risks? What has been the history of FI failure?	Asian Development Outlook World Bank country outlook and strategy papers Ministry of finance of that country Central bank of that country Ministry of statistics and/or industry Websites of some of the larger banks Moody's/Standards & Poor's/ Fitch country outlook	

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Table *continued*

Institutional Assessment			
Topic	**Questions**	**Information Sources**	**Risks Identified**
1.2 Sector Context			
Number of players Size and activity of each player Successful players and reasons for their success Credit growth and NPA sector level Type of regulation affecting the sector	What is the market share—loan, deposit and investments—of the various players? How fragmented is the market? What are the regulations and other factors that inhibit growth? What is the level of approvals/ licensing required to pursue various activities? What have been the key stress areas for the major players in the last 5 years, and how were these managed?	Central bank website Ministry of banking or Ministry of finance Government economic papers/ write up Market studies done by consultants WB/ADB/other multilaterals sector studies Moody's/Standards & Poor's/ Fitch sector outlook research	
2. Corporate Governance			
2.1 Strategic Focus	Does the FI have a long-term business plan? Does the FI have a clearly articulated vision for its growth and profitability? In what areas did the FI succeed in the past? What has been the FI's most successful activities?	Annual report Internal policy documents Website Discussions with management	
2.2 Board of Directors	What is the composition of the board of directors? What are the qualifications and experience of the board members? How is the remuneration of the board members determined?	Board minutes Annual reports Discussions with board members Regulatory inspection reports Review of files Publicly available documents	

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Table *continued*

Institutional Assessment			
Topic	**Questions**	**Information Sources**	**Risks Identified**
	How independent is the board? What board committees have been established?		
2.3 Management	Who are the key managers? How long have they served in the industry/ that institution? Are there clear policies laid down for various aspects of the business? Are targets and market approach clear?	Annual report Entity website HR policy document Management discussion Review of files Publicly available documents	
2.4 Affiliates/ subsidiaries	Are there other affiliates/subsidiaries and are they profitable? Has the FI been subsidizing any group companies? Is there any record of default by any group company? Is there any off-balance sheet finance given on behalf of group companies? Are the transactions between the FI and any group companies considered to be at arm's length?	Annual report Discussions Group company annual reports Discussion with lenders of group company (if feasible) Review of files Publicly available documents	
2.5 Employee management	How does the attrition rate of employees compare with other institutions? What are the stock options and other experiences?	Annual report HR department reports Minutes of board discussions Management discussion Review of files	

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Table *continued*

Institutional Assessment			
Topic	**Questions**	**Information Sources**	**Risks Identified**
	What are the capacity and development initiatives available to employees? Are there any pending legal cases involving employees?		
2.6 Regulatory compliance	What are the statutory filings required by the FI? Has there been any negative findings in any regulatory audit? What score has the FI received in its regulatory audits for the past 3 years? What shortcomings had been identified in any regulatory audit, and how has the FI addressed these issues? Has the FI been levied any fines or penalties by the regulator, and why?	Inspection reports Annual reports Management Discussions Review of files Publicly available documents	
Listing compliance	Are all the filings complete, accurate, and done on time? Has there been any finding of a listing violation? Have there been any fines or penalties imposed on the FI by any authority? Are there pending cases or investigations against the FI?	Annual report Actual filings Compliance reports Other public documents	
2.8 Tax authorities	Are there any pending disputes with tax authorities? Have there been any fines or penalties imposed on the FI by any authority? Has there been any tax audit conducted on the FI?	Annual report Compliance reports Audit reports Findings or rulings by the authorities	

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Table *continued*

Institutional Assessment			
Topic	**Questions**	**Information Sources**	**Risks Identified**
3. Risk Management Framework			
3.1 Risk management	Does the FI have a risk committee and a risk policy? How often is the risk policy reviewed? Has the FI conducted a stress test? If it has, what has been the assessment of value at risk? Does the FI have an internal risk rating system, or do they use the credit rating agency rating? Is the lending done as per risk pricing formula or is it discretionary? What does the FI consider as acceptable market risks and asset liability mismatch risks? Has there been any adverse regulatory comment on the FI's risk practices? Are there any areas identified by the risk committee/internal audit/operations team that are considered vulnerable, and if so, how were these addressed?	Regulator website in general or specific findings by the regulator regarding the FI FI website Annual report Credit rating reports if any Minutes of the meeting of the risk committee	
3.2 Credit function	Does the FI have a credit policy? What types of lending products are available and are they comparable to peers? What is the base rate of lending and is it competitive?	Sample credit documents maintained at the central and at the regional offices Product brochures website information Discussion with credit department	

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Table *continued*

Institutional Assessment			
Topic	**Questions**	**Information Sources**	**Risks Identified**
	What percentage of overall loans do the top 20 borrowers constitute? What percentage of net worth do the top 5 borrowers constitute? Do the regional offices have enough autonomy to take lending decisions? In loans extended by the FI under a consortium arrangement, does the FI conduct an independent appraisal or does it rely on the appraisal of the lead FI? What has been the history of repetitive business? Does the FI have a well-established appraisal process in terms of depth and flow?	Discussion with borrowers (if feasible) Review of files Publicly available documents	
3.3 Problem Loans	Does the FI have a clearly defined recognition policy for NPAs? Are the FI's definitions for NPAs consistent with definitions adopted by regulators? How involved is senior management in NPA management? Are specialized teams involved in NPA recovery? What corrective steps has the FI taken in the past [x] years to reduce NPAs?	Annual report Regulator website Regulator inspection reports (if available) Management discussions Review of files Publicly available documents	

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Table *continued*

Institutional Assessment			
Topic	**Questions**	**Information Sources**	**Risks Identified**
	Is the management aggressive in collateral realization to recover dues? Is the provisioning aggressive or conservative? Have there been any regulatory issues/concerns in recognition and management of NPAs?		
3.4 Investment portfolio	Does the FI adhere to a broad investment plan or are its investments driven by market instruments? What proportion of investment portfolio is in government securities? Has the FI, in the past 5 years, conducted any write-offs because of mark-to-market issues? Has the FI conducted any stress testing on its investment portfolio?	Annual report Management discussion Review of files Publicly available documents	
3.5 Capital	What is the FI's level of capital adequacy? How often does the FI raise capital? What is the dividend payout ratio?	Annual report Issue documents Discussions with management Review of files Publicly available documents	
3.6 Funding	Is the institution aggressive in pursuing low-cost funds? Can the branch raise sufficient low-cost liabilities to pursue future growth plans? What proportion of the deposits are bulk deposits?	Annual report Issue documents Discussions Review of files Publicly available documents	

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Table *continued*

Institutional Assessment			
Topic	**Questions**	**Information Sources**	**Risks Identified**
	What are the other market borrowing options in its pool of funds? Does the credit rating of the institution allow it to raise funds unhindered?		
3.7 Off-balance sheet liabilities	Any significant increase in off-balance sheet liabilities? Pending legal disputes and status? Hedging contracts and open positions?	Annual report Discussions with management Review of files Publicly available documents	
3.8 Collateral/ Asset protection measures	Does the FI have adequate measures to protect asset finances? Are its assets covered by insurance? Does the FI have adequate documentation practices to support enforcement? How often does the FI inspect and assess its assets?	Discussion with management Review of files Publicly available documents	
3.9 Compliance function	Does the FI have a separate compliance function? Who does the compliance unit report to? Is it independent? Is the unit adequately staffed? Does the FI have a whistleblower policy?	Discussions with management Corporate governance statement	

ADB=Asian Development Bank, FI=financial intermediary, GDP=gross domestic product, HR=human resources, NPA=nonperforming asset, WB=World Bank.
Source: Asian Development Bank.

Financial Management Assessment		
Topic	**Response**	**Risks Identified**
1. Executing / Implementing Agency		
1.1 Confirm the legal status/registration of your institution.		
1.2 How will the proposed ADB loan facility be managed under the current organizational structure?		
1.3 How much equity (shareholding) is owned by the government? Obtain the list of beneficial owners of major blocks of shares (nongovernmental portion), if any.[1]		
2. Funds Flow Arrangements		
2.1 Do you have experience in the management of disbursements from international financial institutions (yes or no)?		
2.2 Please confirm if the proposed fund flow arrangements and disbursements to end borrowers under the project are in line with internal credit review and lending policies and processes. (yes or no)		
2.3 How do you monitor eligibility of subborrowers?		
2.4 Is the bank, in which the advance account is established, capable of: (i) foreign currency transactions (yes or no)? (ii) handling large volume of transactions (yes or no)? (iii) issuing monthly bank statements (yes or no)?		
2.5 In which bank will the advance account (if applicable) be established? If separate accounts or ledgers in the PFI's accounting systems may be used in lieu of a separate bank account, does the PFI have adequate fiduciary arrangement to manage the separate account in its system?		
2.6 If there is a free limit above which the proposals need to be submitted by the PFI to ADB for prior approval, and if so, does that take into consideration the PFI's record of performance?		

continued on next page

[1] In such cases, consult the Office of Anticorruption and Integrity, ADB, on the need for integrity due diligence on nongovernmental beneficial owners.

Table *continued*

Financial Management Assessment		
Topic	**Response**	**Risks Identified**
2.7 Does the PFI have adequate administrative and accounting capacity to manage the advance fund and SOE procedures in accordance with ADB's Loan Disbursement Handbook? Identify any concern or uncertainty about the PFI's administrative and accounting capability, which would support the establishment of a ceiling, at the free limit, on the use of the SOE procedure.		
3. Financial Management Resources and Staffing		
3.1 What is the organizational structure of the accounting department? Please provide an organization chart.		
3.2 Please identify proposed accounts staff for the ADB loan facility, including job titles, responsibilities, and educational backgrounds.		
3.3 Will the ADB loan facility have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all loan officers, managers and staff (yes/no)?		
3.4 Are finance and accounting functions staffed adequately (yes/no)?		
3.5 Are finance and accounting staff adequately qualified and experienced (yes/no)?		
3.6 Indicate key positions not yet contracted, and estimated date of appointment, if any.		
3.7 What is the personnel turnover rate?		
4. Accounting Policies and Procedures		
4.1 What accounting standards are followed in the preparation of financial statements?		
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained (yes or no)?		
4.3 Are the general ledger and subsidiary ledgers, if any, reconciled and in balance?		

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Table *continued*

Financial Management Assessment		
Topic	**Response**	**Risks Identified**
4.4 Do procedures exist to ensure that only authorized persons can alter or establish new accounting principles, policies, or procedures (yes/no)?		
4.5 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access (yes/no)?		
Accounting Policies, Procedures, and Manuals		
4.6 Are there written policies and procedures covering all routine financial management and related administrative activities, including an accounting policy and procedures manual (yes/no)?		
4.7 Are there adequate policies and procedures manuals to guide activities and ensure staff accountability (yes/no)?		
4.8 Are these procedures manuals distributed to appropriate personnel (yes/no)?		
4.9 To what extent is the accounting system computerized? Please explain.		
4.10 Are there policies and procedures that clearly define conflict of interest and related party transactions, real and apparent? Are these policies clear and unambiguous? Do these policies and procedures provide safeguards to protect the organization from conflict of interest and related party transactions (yes/no)?		
5. Segregation of Duties		
5.1 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction (yes/ no)? (ii) recording of the transaction (yes/ no)? (iii) custody of assets involved in the transaction (yes/no)?		
5.2 Are bank reconciliations prepared by someone other than those who make or approve disbursements?		

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Table *continued*

Financial Management Assessment		
Topic	**Response**	**Risks Identified**
6. Budgeting Procedures		
6.1 Do budgets include financial targets (yes/no)?		
6.2 Are plans, budgets, and activities for the use of the ADB loan facility realistic, based on valid assumptions, and developed by knowledgeable individuals (yes/no)?		
6.3 What procedures are in place to plan, review, and monitor the lending pipeline?		
7. Safeguard over Assets		
7.1 Is there a system of adequate safeguards to protect from fraud, waste, and abuse (yes/no)?		
7.2 Do employees, beneficiaries, and other recipients know how to report suspected fraud, waste, or misuse of internal resources or property (yes/no)?		
7.3 Are assets sufficiently insured (yes/no)?		
7.4 How are the subloans in the proposed project reviewed, approved, and monitored?		
8. Internal Audit		
8.1 Is there an internal audit department (yes/no)?		
8.2 What are the qualifications and experience of audit staff and how long have they been working with the FI?		
8.3 Do any of the internal audit staff have a relevant IT background (yes/no)?		
8.4 Is the internal audit department sufficiently independent (yes/no)?		
8.5 To whom does the internal auditor report? How frequently?		
8.6 Can the internal audit department include the ADB loan facility separately in its work program?		
8.7 Is there an internal audit manual governing the IA function (yes/no)? Is it risk-based (yes/no)?		
8.8 How are audit deficiencies managed and tracked, and are actions taken on internal audit findings?		

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Table *continued*

Financial Management Assessment		
Topic	**Response**	**Risks Identified**
8.9 Does the internal auditor meet with the audit committee without the presence of management (yes/no)?		
9. External Audit—Entity Level		
9.1 Are financial statements audited regularly by an independent auditor (yes/no)? [Please provide a copy of the audited financial statements for last 3 years.]		
9. Who is the current external auditor, and when was the last time the external auditors were changed?		
9.3 Have there been audit delays (yes/no)? When are audit reports normally issued? For what year are the most recent audited financial statements available?		
9.4 Is the audit conducted according to International Standards on Auditing (yes/no)?		
9.5 Has any audit report within the past 3 years revealed any accountability issues? Was it a qualified audit opinion (yes/no)? How have they been addressed?		
9.6 Does the external auditor meet with the audit committee without the presence of management (yes/no)?		
9.7 Have any external audit firms engaged for any non-audit engagements [e.g., consulting] (yes/no)?		
9.8 Are you aware of ADB auditing requirements (yes/no)?		
External Audit—Loan Facility/Project Level		
9.9 Will the statutory auditor audit the project accounts, or will an auditor be appointed to audit the project financial statements?		
9.10 Have any recommendations been made by the auditors in prior project audit reports or management letters that have not yet been implemented? (Please provide the latest management letter.)		

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Table *continued*

Financial Management Assessment		
Topic	**Response**	**Risks Identified**
9.11 Is the ADB loan facility subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit (yes/no)?		
9.12 Will terms of reference for an annual project audit be prepared relating to financing under the ADB loan facility (yes/no)? Will these be agreed and discussed with the auditor, where relevant?		
10. Reporting and Monitoring		
10.1 What kind of financial management reports are prepared for internal use by management?		
10.2 What is the frequency of preparation of financial statements and reports? Are the reports prepared in a timely fashion to be useful to management for decision-making (yes/no)?		
10.3 Does the reporting system need to be adapted to report on individual projects/ project components (yes/no)?		
10.4 Are financial reports prepared directly by the (automated) accounting IT system or are they prepared using spreadsheets or by some other means?		
11. Information Systems		
11.1 What are the internal and external audit findings on information systems over the past 2 years and how have these findings been addressed?		
11.2 Can the IT system produce the necessary project financial reports to include specific loan information on subborrowers? e.g., women-led borrowers, borrowers outside the city, previously unbanked borrowers, etc. (yes/no)?		
11.3 Does the management organization and processing system safeguard the confidentiality, integrity, and availability of data (yes/no)?		

ADB=Asian Development Bank, FI=financial intermediary, IA=implementing agency, IT=information technology, PFI=participating financial intermediary, SOE=statement of expenditures.

Source: Asian Development Bank.

Appendix 4: Institutional Quality Assessment

Roles and Responsibilities of the Board and Management Committees

This section expands on the roles and responsibilities of committees that may be established by the board of directors to allow for deeper deliberations on critical issues.

1. **Risk committee.** "The board is responsible for determining the nature and extent of the significant risks it is willing to take in achieving its strategic objectives. The board should maintain sound risk management and internal control systems."[1] In this regard, the risk committee of the board "provides oversight and advice to the board on the risk exposures and future risk strategy of the entity, including strategy for capital and liquidity management, and the embedding and maintenance of a supportive culture in relation to the management of risk across the company, alongside established prescriptive rules and procedures."[2] The risk committee should comprise a majority of independent nonexecutive directors. Some codes of corporate governance mandate a separate risk report to be prepared and published as part of the annual report of the participating financial intermediary (PFI). This can provide important information related to risk governance at the PFI.

2. **Audit committee.** The key functions of the audit committee are to: (i) consider the appointment of the external auditor; (ii) review the internal audit function and ensure it remains adequately independent and well-resourced; (iii) consider management's response to any major external or internal audit recommendations; (iv) review the procedures for handling allegations from whistleblowers; (v) review internal audit reports on the effectiveness of systems for internal financial control, financial reporting, and risk management; and (vi) monitor the integrity of the financial statements. It should have at least two to three independent members and in some institutions consists only of independent directors.

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[1] Financial Reporting Council. 2012. *The UK Corporate Governance Code.* p. 7.

[2] A Review of Corporate Governance in UK Banks and Other Financial Industry Entities, Final Recommendations.2009.Governance of Risk, recommendation 23, p. 19.

3. **Remuneration committee.** The remuneration committee is tasked with oversight of remuneration policy and arrangements across the financial intermediary (FI). It should be comprised wholly of independent nonexecutive directors.

4. **Management committees.** Management may also establish management committees to aid in deliberations of crucial issues, particularly asset liability management and credit management.

(i) Asset liability management committee. This committee manages the balance sheet of the PFI to ensure that the asset liability mismatch is kept within levels specified by the risk committee.
(ii) Credit committee. The credit committee lays down the broad policies in terms of type and form of lending including sector, tenor, products, and types of borrowers. It ensures alignment of credit policies and sanctions with the internal risk policies in terms of upper threshold of exposure levels. It works closely with the risk group in terms of pricing of credit to ensure that the risks are adequately assessed and priced. While the risk premium for a loan is suggested by the risk committee, the credit committee usually has a final say on risk pricing as it understands market conditions and competition better. It comprises of a combination of senior management, including the managing director and the head of credit and the head of risk.

Considerations in Credit Risk Assessment (refer to paragraph 4.19)

1. Credit risk mitigation measures include the following:

Loan Portfolio

(i) exposure to single client;
(ii) exposure to a group;
(iii) related party transactions;
(iv) quality of collateral (the track record of recovering delinquent loans through sale of the underlying collateral; extent of profit or loss in such transactions);
(v) rigor of loan documentation; and
(vi) regularity in the review of credit policies and risk scoring models (are they in line with peer institutions, better or worse?).

Investment Portfolio

(i) exposure taken on account of client requests and taken with the FI's own money,
(ii) overnight limits set up for own positions,
(iii) unhedged exposures and rationale,
(iv) investment in unlisted companies, and
(v) investment write-offs and reasons.

Appendix 5: CAMELS—Details on Key Assessments

This table discusses the factors related to the corporate governance specifically management as discussed in Chapter IV on Institutional Assessments.

Table A5.1: Management Quality Assessment

Hard Factor	Assessment Technique	Remarks
Growth	Year-on-year growth of the overall business measured by: (i) growth in balance sheet size, (ii) growth in the loan portfolio, (ii) growth in the investment portfolio, and (iv) growth in risk-weighted assets.	An aggressive approach to growth without commensurate mitigating measures can increase the risk profile of the PFI. While growth is not a negative factor, pursuit of high growth even during economic downturn or tough macroconditions could be a cause for concern and needs to be carefully evaluated.
Productivity	Ratios Cost to income: Only operating costs should be taken for this ratio. For this purpose, operating costs include employee costs and administrative expenses. Costs (only operating costs) to average assets deployed Revenue per branch or per employee Net profit per branch or per employee.	Productivity indicators highlight the efficiency of the PFI in performing its operations. Whether it is a commercial entity or an institution with development focus efficiency of operations can help the PFI in achieving its strategic objectives.
Market share	Loan market share (loans of the FI/ total systemic loans outstanding) Loan growth (sanctions for a year/ systemic sanctions) Deposit market share (deposits of the FI/systemic deposits)	A comfortable market position may help the PFI to sustain its income and profitability. Continuous deterioration in the market share may result in reduced economies of scale and weakened financials over a period.

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Table A5.1 *continued*

Hard Factor	Assessment Technique	Remarks
		The market share assessment should be used in conjunction with factors such as market and product presence, competitive pricing, proactive launch of new products, and past track record in entering and operating in new markets.
Systems and processes	Extent of automation Delegation of authority Regulatory compliance Brand perception	These are qualitative aspects that cannot be measured through a ratio, but can be assessed during interaction with the management and/or the regulator. The proactive and transparent communication made by the management in its public documents is a good measure to assess management.
Shareholders	Ability to adhere to strategic targets of growth and profits Return on equity Dividend payout Corporate governance	These can be assessed by tracing the public pronouncements and actual performance of the PFI over a period. While assessing dividend payout, it should be remembered that retained earnings strengthen Tier I capital adequacy. A prudent institution may conserve capital. The corporate governance policies are important as they indicate that the PFI is not focused on profitability alone, but is also a well-governed and transparent entity. The set of measures to be used to assess governance is discussed in a separate section on corporate governance.

FI=financial intermediary, PFI=participating financial intermediary.
Source: Asian Development Bank.

Table A5.2: Asset Quality Assessment
(refer to paragraph 5.7)

Factor	Check	Relevance
Portfolio granularity	• Look for concentration across customer group/ product/ segments/ geography. • Test for vulnerability of existing portfolio by analyzing underwriting of some of the top borrowers/ segments. • Test for the sustainability of growth along the same lines by understanding the demand for credit, other players in the business, and the market position of the PFI. • Evaluate policies in place that determine asset categorization and exposure levels.	• A higher concentration exposes the FI to a significant one-time loss. • For example, a natural disaster in one area can delay all payments from that area and can alter the financials in a short period of time. Specialized funding institutions may necessarily have this concentration risk. • Market position assessment may be important for financial assessment and for making the financial assessment. For example, a PFI with a few branches and few products cannot grow irrespective of the systemic credit growth.
Single customer/ single group exposure	• Most FIs restrict their exposure (on-balance sheet and off-balance sheet) to single customer or groups as a proportion of their total Tier 1 capital.[a] This is a basic "de-risking" strategy to minimize delinquencies and to diversify lending. • The board of directors of the FI prescribe a ceiling for this through a credit policy document. Understanding the credit policy on exposure norms and the implementation rigor is very useful.	• Higher group or customer exposure should be viewed both as a credit risk as well as governance risk. • Some groups float multiple entities to bypass exposure limits norms. Each of these entities are positioned as a separate special purpose vehicle or SPV implementing a single project. In such cases, these projects may access the financial system separately leading to duplication of financing. This is particularly relevant in PFIs with high exposure in infrastructure sectors or real estate sectors.

FI=financial intermediary, PFI=participating financial intermediary.

[a] Off-balance sheet exposure is one that is contingent on occurrence or nonoccurrence of an event. For example, if a borrower gives a performance assurance for a government project in the form of guarantee, and the borrower does not execute the project to the satisfaction of the government, the latter can encash the guarantee and the FI will be obligated to pay the government the amount of guarantee, with the option of recovering the same from the borrower.

Source: Asian Development Bank.

This section expands on the discussion on nonperforming assets (NPAs) the capital adequacy, asset quality, management quality, earnings quality, liquidity and sensitivity (CAMELS) review, as discussed in Chapter V on Financial Performance Assessments.

Table A5.3: Nonperforming Assets Related Terms

Gross Loans and Advances	The total value of loans outstanding as on the date of the balance sheet
Gross NPA	This indicates the total outstanding amount against the assets that have not paid their interest and/or principal on time. The amount of write-off against these assets in the books of the PFI will be the total outstanding amount (principal plus accrued interest).
Annual provision or provision for bad debts in the profit and loss account	An FI may make an incremental provision for progressive deterioration in asset quality. This is debited to the income statement and reduces the annual profitability. The nomenclature for this line item is "Provision for NPAs/Provision for doubtful debts" and may be seen in the income statement of the PFI. This annual number goes to increase the loan loss provisions/loan loss reserves figure in the balance sheet. If the PFI is successful in recovering some dues from the borrower due to a turnaround or an asset sale, there could be a write back in that year.
Loan loss reserves	The cumulative amount of the provisioning till date and is usually available in the balance sheet.
Bad debts written off	Indicates the write-off over and above the provisioning done for incremental deterioration in assets. This is for assets that undergo a sharp and sudden deterioration. This is shown in the income statement as bad debts written off.
Net loans and advances	GLA reduced by loan loss reserves.
Net NPA	Gross NPA less loan loss reserves.

FI=financial intermediary, GLA=gross loans and advances, NPA=nonperforming assets, PFI=participating financial intermediary.
Source: Asian Development Bank.

Table A5.4: Implications of Asset Quality Ratios
(refer Paragraph. 5.15)

Ratio	Implication
GNPA ratio GNPA/Gross Loans and Advances	This represents the proportion of loans that are not performing. A higher GNPA or GLA indicates that a higher proportion of assets have become NPA and may need to be provided for. Many FIs report only net NPA/net loans and advances (see below). This can give a misleading impression that the NPA percentage is low. When a PFI gives an NPA percentage, it would be prudent to ascertain whether it is a GNPA percentage or net NPA percentage.
Net NPA ratio Net NPA/Net loans and advances	This is computed as (GNPA minus Loan loss reserves) or (GLA minus Loan loss reserves), where the loan loss reserves is an indicator of the cumulative provisioning made by the PFI on account of its NPAs. The net NPA percentage ratio indicates the amount of NPA that is still part of the books of the PFI.
Coverage ratio or PCR Loan Loss Reserves/Gross NPA	This indicates the extent of provisioning made against existing acknowledged NPAs. (1- PCR)*GNPA may be the likely future provision on account of existing NPAs in the books. If the management is conservative, this ratio can be up to 100%. For example, a PFI has GNPAs amounting to $100 million and in a 3-year period the PFI provides for $75 million. The resulting PCR is 75% and the balance to be provided for is $25 million or 25%.

FI=financial intermediary, GLA=gross loans and advances, GNPA=gross nonperforming asset, NPA=nonperforming assets, PCR=provision coverage ratio, PFI=participating financial intermediary.
Source: Asian Development Bank.

This section expands on the discussion in Chapter V on Financial Performance Assessments as part of the CAMELS review.

Table A5.5: Earnings Quality Assessment

Indicator	Ratio	Interpretation
Return on Average Assets (ROAA)	Net income (Income net of all expenses including tax)/Average total assets.[a]	The assets of a PFI generate income for the institution. The ability of the PFI to consistently return a good ROAA is not only an indicator of sustainability but also is an indicator of management competency. A proactive management works toward a targeted return on assets and builds its asset and liability portfolio accordingly.
Return on Equity (ROE)	Net income/ Shareholders funds (Shareholder funds includes common equity plus reserves)	It is important for a PFI to show attractive ROE as these institutions are in the market to raise capital frequently. Lackluster shareholder return may make it difficult for a PFI to raise future equity.
Net interest margin (NIM)	(Interest earned minus Interest expended)/ Average assets deployed.[b]	A financial institution's primary source of income is the positive spread it generates between interest earned and expended. All other expenses including operating expenses and provisioning are managed out of this surplus. A thin NIM indicates that there is very little headroom to manage other expenses.
Interest spread	[(Interest earned/ Average loan and advances plus average investment assets)] minus [(Interest plus finance charges)/ Average borrowings)] Average loans include all loans and advances; Interest earned should exclude processing fees; Average borrowings should include all interest-bearing borrowings.	This ratio indicates the spread that the PFI makes over its average borrowing cost. NIM measures the spread from the overall assets perspective and is useful for future projection. The interest spread ratio helps in assessing the gross yield of the PFI on its assets and can be used to assess the quality of the underlying borrowers and the PFI's fund-raising capability.

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Table A5.5 *continued*

Indicator	Ratio	Interpretation
Fee income	Fee income/Total income	Fee income is considered a desirable component of a PFI income as this comes without leveraging the balance sheet. Fee income also indicates a diversity of the income stream. A higher proportion of fee income is considered positive though sustaining fee income under tough market conditions is difficult.
Yield on advances	Interest income from loans and advances / Average loans and advances	The gross yield gives an idea as to the type of portfolio of the PFI. A high yield may indicate that the PFI is carrying a higher risk as the loan portfolio may consist of poorly rated borrowers who carry a higher risk premium.
Cost of funds	Interest expense/ Average borrowings Interest on deposits/ average deposits	While the first ratio includes all types of funding, the second measures only the cost of deposit. For large deposit taking institutions where deposits form a substantial portion of total funding these ratios are closely aligned.

PFI=participating financial intermediary.

[a] Average total assets is a simple average of opening and closing total assets as per the balance sheet. Some analysts use average earning assets for this ratio. That can be a little tricky as based on balance sheet alone, it may be difficult to judge the earning and non-earning assets. This will also bring an element of subjectivity to this ratio making interfirm comparison difficult. Average assets are taken rather than total assets as at the end of the year to remove the timing kinks in asset growth.

[b] Instead of using average assets, interest earning assets can be used, but problems of subjectivity in earning versus non-earning assets make this difficult.

Source: Asian Development Bank.

This section expands on the discussion on liquidity as part of a CAMELS review, as discussed in Chapter V on Financial Performance Assessments.

Table A5.6: Liquidity Assessment

Indicator	Ratio	Interpretation
Loan-to-deposit ratio	Loan and advances/ Customer deposits This ratio is relevant only for universal banks and deposit-taking PFIs.	Deposits are considered core funding as they have an element of stability. FIs with a larger deposit funding have a higher proportion of core funding. The cost of deposits is normally lower than market borrowings and is not subject to frequent fluctuations. This can help in maintaining interest spread. For development banks/ government-supported institutions with specific role, this ratio may not be relevant.
Low-cost deposits ratio	(Current account plus savings account)/total deposits	The current and savings accounts (CASA) are payable on demand and hence, can be considered volatile in turbulent market conditions. In general, though, a PFI with a good reputation has a stable base of CASA deposits. Additionally, the rate of interest on these funds is low and helps to reduce the overall cost of funds. Hence, while a higher proportion of CASA is good, it should be seen in conjunction with the franchise value of the institution that may ensure a higher renewal rate. Franchise value is the market standing of the PFI in the retail market and its breadth and depth of service offering. Some of the aspects that define franchise value are the number of branches of the PFI, the number of customer accounts it has, and the range of services offered by the PFI.

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Table A5.6 *continued*

Indicator	Ratio	Interpretation
		A higher franchise value may ensure that the liquidity may move from one part of the PFI to the other. For example, a buyer and seller both have accounts in the same large bank. The payment made by one to the other may still remain within the bank.
Proportion of bulk deposits	• Bulk deposits/total deposits • Bulk deposits are deposits that are kept by corporate customers in anticipation of specific expenses. For example, after a public offering a corporate may have excess funds lying in its account for a short period of time in anticipation of forthcoming expenses. Bulk deposits put pressure on the liquidity management and should be assessed separately. The analyst should ascertain the proportion of bulk deposits to total deposits, the likely time by which it may move out of the system, and the backup liquidity plan for such eventuality. One additional input that can be taken is the proportion of deposits from the 10 largest depositors and the tenor of the same.	A high proportion of bulk deposits impacts liquidity and liquidity management. Bulk deposits also work out to be costlier than regular deposits as they may need to be incentivized. The bulk deposits is a relevant pointer for those PFIs that have access to funds from large projects or have government funds for a short period of time. While this is not a uniform factor, this should be evaluated whenever relevant.
Basel III ratios Liquidity coverage ratio	• High-quality liquid assets > net cash outflows of the next 30 days. • High-quality liquid assets are those that are already liquid or can be converted at short notice. These would include cash and cash equivalents such as deposits with the central bank, other banks, investment in government securities, and money market investments. • Net cash flow is the difference between committed inflows and outflows.	Liquid asset assessment is important especially in those economies where the banking segment witnesses a high degree of volatility. Volatility for this purpose means high credit growth, prevalence of an asset bubble, high inflation coupled with increasing borrowing costs. While liquid assets do not generate high yields, having an adequate level of liquid assets may help banks manage sudden funding needs without panic. More importantly, it can help manage market perception about the PFI's

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Table A5.6 *continued*

Indicator	Ratio	Interpretation
		ability to pay. Liquidity constraints and more importantly perception of liquidity shortage one of the problems that affected the financial system in 2008. Hence, the liquidity coverage ratio has been spelled out in Basel III.
Net stable funding ratio	• Long term funds sources > uses of funds Stable funding: • Equity and any liability maturing after 1 year; • 90% of retail deposits; • 50% of deposits from nonfinancial corporates and public entities. • Long-term uses: • 5% of long-term sovereign debt or equivalent with 0%-Basel II standard approach risk-weighting with a residual maturity above 1 year[a] • 20% of nonfinancial corporate or covered bonds with at least rated an AA- with a residual maturity above 1 year;50% of nonfinancial corporate or covered bonds with at least a rating of at least A- and A+ • with a residual maturity above 1 year • 50% of loans to nonfinancial corporates or public sector • 65% of residential mortgage with a residual maturity above 1 year • 5% of undrawn credit and liquidity facilities	A net stable funding ratio helps the bank to pursue its short- to medium-term objectives without concerns about funding gaps. Also, a stable funding discipline may help in better long-term planning of the institution.

FI=financial institutions, PFI=participating financial intermediary.

[a] Residual maturity indicates the remaining tenor of the paper. In this case, a loan whose repayment schedule is spread over 1 year for corporate bonds that are maturing after 1 year are the ones measured.

Source: Asian Development Bank.

Sensitivity Assessment

Elasticity of capital adequacy

This section expands on the discussion on sensitivity as part of a CAMELS review, as discussed in Chapter V on Financial Performance Assessments.

The elasticity of the capital adequacy[1] can be tested using multiple scenarios. The elasticity is illustrated in Table A5.7.

Table A5.7: Example of Elasticity of Capital Adequacy

Item	Current Position (in $ millions)	Future Asset (25% growth)	Future Asset (40% growth)
Total capital	100	100	100
Risk-weighted assets	800	1000	1120
CAR (Min. 10%)	13%	10%	9%

CAR=capital adequacy ratio.
Source: Asian Development Bank.

The example in Table 5.7 shows that the elasticity of the capital is limited to 25% growth. Beyond that level, more capital infusion is required. The analyst should evaluate the realistic scenario of asset growth and capital infusion and state it accordingly in the assessment.

Basel III has also included a leverage measure which maintains a minimum of 3% leverage only for Tier I capital.

Leverage ratio = Capital measure / Exposure measure

Basel III indicates that capital for this purpose may only be Tier I capital.
The exposure measure for the leverage ratio should generally follow the accounting value, subject to the following:

(i) On-balance sheet, nonderivative exposures are included in the exposure.

[1] Elasticity of capital adequacy means the stress on capital adequacy under various situations. For example, if the asset growth is taken at say 20% without any change in the underlying risk composition, the capital adequacy might go below the regulatory floor. In which case, the FI will not be able to grow beyond 20%, without infusing further capital. On the other hand, asset grows only by 10%, but due to economic condition, there could be a slippage of some of the assets to lower rating categories and hence, the RWA goes up. Such simulation can help the analyst identify the extent of stress the portfolio can take without the capital adequacy falling below the regulatory floor.

(ii) Measure net of specific provisions or accounting valuation adjustments (e.g., accounting credit valuation adjustments).
(iii) Netting of loans and deposits is not allowed.
(iv) Credit risk mitigation reductions not allowed.

2. A bank's total exposure measure is the sum of the following exposures: (i) on-balance sheet exposures, (ii) derivative exposures, (iii) securities financing transaction exposures, and (iv) off-balance sheet items. Leverage ratio is defined as part of Basel III. As and when countries adopt Basel III, the exact definition and calculation nuances may be specified by the national regulators.

3. The analyst should understand the approach toward Basel III and implementation timelines and evaluate these ratios accordingly.

Financial Due Diligence for Financial Intermediaries

Technical Guidance Note

This technical guidance note describes the requirements and good practices of the Asian Development Bank (ADB) for due diligence on financial intermediation loans. ADB financial intermediation loans are used to further policy reform in the financial and real sectors; strengthen the capacity, governance, and sustainability of participating financial intermediaries; mitigate market distortions; and help increase the efficiency and stability of the respective developing member country financial system. The objective of due diligence is to assess the financial sustainability of financial intermediary and conclude its eligibility for an ADB project, including its financial and risk management capacity.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 67 members—48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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